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# Gabriel Eugene Hunt M.D.

Neurological Surgery,Neurosurgery,Spinal Surgery

User Name:

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# DEPOSITION OF GABRIEL E. HUNT JR. M.D.; 2006 DEPO. TRANS. LEXIS 35035

CIRCUIT COURT OF ILLINOIS, WINNEBAGO COUNTY, SEVENTEENTH JUDICIAL CIRCUIT

No. 02 L 323

January 6, 2006

**Reporter**
2006 Depo. Trans. LEXIS 23992 *; 2006 DEPO. TRANS. LEXIS 35035 **

JANET JOHNSON Individually and as Executor of the Estate of Denton L. Johnson (Deceased), Plaintiff, vs. OSF HEALTHCARE SYSTEM DBA OSF ST. ANTHONY MEDICAL CENTER, Defendants.

**Expert Name:** GABRIEL EUGENE HUNT, Jr., M.D.

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## Counsel

**[*1] [**1]** For the Plaintiff: THE SZYMANSKI KOROLL LITIGATION GROUP, BY: CYNTHIA SZYMANSKI KOROLL, Rockford, Illinois, 815.639.9000.

For the Defendant: HINSHAW & CULBERTSON, BY: GREGORY T. SNYDER, Crystal Lake, Illinois, 815.459.5123.

## Proceedings

1 GABRIEL E. HUNT JR. M.D.

[2]The Witness herein, after having been duly sworn,

[3]was examined and testified as follows:

[4]

[5]EXAMINATION BY MR. SNYDER:

[6]Q Could you please state your name for the

[7]record, sir.

[8]A Gabriel E. Hunt, Junior, M.D.

[9]Q Let the record reflect this is the discovery

[10] **[*2] [**2]** pursuant to notice and pursuant to agreement with

[11]parties.

[12]Dr. Hunt, my name is Greg Snyder. This is your

[13]discovery deposition. Have you ever been deposed

[14]previously?

[15]A Yes, I have.

[16]Q On how many occasions?

[17]A Best I can remember, probably about three or

[18]four. I think like four, maybe.

[19]Q Let me give you a refresher just with respect

[20]to the ground rules. We ask that any testimony you give

[21]today be given today with a reasonable degree of medical

[22]certainty. Do you understand that?

[23]A Yes.

[24]Q Your answers need to be kept out loud, avoiding

[25]shrugs of the shoulders, nods of the head, such as is

[3]

[1]commonly used in conversation. It's best that your

[2]responses be given verbally when the court reporter is

[3]here. Do you understand that as well?

[4]A Yes.

[5]Q If at any point I ask you a question which

[6]doesn't make sense to you in the context of the

[7]discussion, let me know, and I will attempt to rephrase

[8]it in a way that makes sense to you.

[9]A Sure.

[10]Q I'm going to show you what we have marked.

[11]These are some exhibits to start off. The originals

[12] **[*3] [**3]** here have the red stickers on them. First is what we

[13]call the Notice of Deposition. That's marked as

[14]Deposition Exhibit 1.

[15]And attached to that we have a rider for the

[16]deposition, which essentially asks that you bring with

[17]you to the deposition, among other things, all the

[18]materials that you would have reviewed and relied on in

[19]order to formulate your professional opinions in this

[20]case. Do you understand that?

[21]A Yes, sir.

[22](Defendant's Exhibit 1 was marked for

[23]identification.)

[24]Q Okay. Do we have all of those materials that

[25]you reviewed in the process of formulating your opinions

[4]

[1]realized in this case here?

[2]A These are the materials I have in my

[3]possession. And here is the CT scan --

[4]Q All right. Good.

[5]A that I reviewed also.

[6]Q What we have here is Deposition Exhibit No. 2.

[7]This is what we were provided.

[8]A It's a horrible picture.

[9]Q Worst picture I have seen since that one of the

[10]polar bear eating marshmallows in a snow storm.

[11]Attached to that, looks like a copy of your

[12]curriculum vitae, or resume. Is that correct?

[13] **[*4] [**4]** A Yes.

[14](Defendant's Exhibit 2 was marked for

[15]identification.)

[16]Q Will you take a look at that and see if the

[17]resume that we have attached to your deposition

[18]accurately sets out or summarizes your professional and

[19]educational training thus far?

[20]A Okay.

[21](Witness complies.)

[22]It's pretty clear, with the exception of just

[23]one publication. But it's not a big deal.

[24]Q What would we need to do to update it, then?

[25]Add a recent publication?

[5]

[1]A Yes.

[2]Q What would that be?

[3]A It was -- I can't remember the exact title,

[4]just one of our magazine articles about acoustic

[5]neuromas.

[6](Defendant's Exhibit 3 was marked for

[7]identification.)

[8]Q I have shown you what we have marked as

[9]Deposition Exhibit No. 3. This is the expert witness

[10]disclosure that we were provided. I would like to you

[11]take look at it and see if that accurately sets out your

[12]opinions regarding the standard of care and causation in

[13]this lawsuit.

[14]A Yes, it appears to be consistent with my

[15]opinion.

[16]Q Let's go through then and inventory the

[17]materials that you **[*5] [**5]** provided and relied on to formulate

[18]your opinions, first with respect to medical records.

[19]What medical records would that consist of?

[20]A This much of the complete medical record, but

[21]some information from the hospital, admission, with some

[22]consultations and charting.

[23](Defendant's Exhibit 4 was marked for

[24]identification.)

[25]Q Okay. Let me put a sticker on that, and make

[6]

[1]sure we don't lose track. So I have marked it as

[2]Deposition Exhibit 4 then. This medical chart is

[3]deposition Exhibit 4, all the medical records with

[4]respect to paper records that you looked at in this

[5]case?

[6]A That I personally looked at.

[7]MS. KOROLL: We went over some of my records

[8]today.

[9]THE WITNESS: I was trying to think. I know she

[10]brought them and I was trying to see if I did look at

[11]those. I think there was one page I did look at.

[12]Other than that --

[13]MR. SNYDER: To be perfectly frank, I would like to

[14]literally and figuratively inventory the scope of what

[15]you were exposed to before we even discuss your opinions

[16]so I know what it is you have seen and -- as well as

[17]what **[*6] [**6]** you haven't seen, all right, get it all on the

[18]table.

[19]THE WITNESS: This I had in my possession. And

[20]there was a page or two of these materials.

[21]MR. SNYDER: If you or Counsel could just figure

[22]out what --

[23]MS. KOROLL: He had all those records. Those were

[24]sent to him. Today he had some specific questions such

[25]as was an LDH performed at Kishwaukee, that I then

[7]

[1]showed him, the LDH record. And then we just went back

[2]and reviewed specific items that had been previously

[3]discussed, and I tabbed the dates for easy reference.

[4]And this is the whole OSF medical record chart.

[5]MR. SNYDER: That's what I thought. See, the only

[6]record that you have reviewed and relied on for purposes

[7]of formulating your opinion that isn't here in

[8]Deposition Exhibit 4 is the lab report that showed the

[9]LDH level from Kishwaukee.

[10]THE WITNESS: It's not in the medical records.

[11]These are a couple of other things that were supplied

[12]to me.

[13]Q BY MR. SNYDER: Let's go through all those. So

[14]then did -- I don't want to get too far ahead. We will

[15]inventory everything in the pile, and ask you later **[*7] [**7]** did

[16]we do everything.

[17]So you reviewed the entire record that you were

[18]provide here, Deposition Exhibit 4?

[19]A Yes.

[20]Q And then here is a letter -- for lack of better

[21]term -- dated August 12, 2002. Did you review and rely

[22]on this in formulating your opinion?

[23]A I have to read over it. I can't remember

[24]reading this.

[25]Q Sure.

[8]

[1]A (Witness reads.) I don't remember seeing this,

[2]though parts of this I am sure I glanced at it at some

[3]point.

[4]Q Is it significant to your opinions at all in

[5]the case?

[6]A Seems like just a short little synopsis, a very

[7]short version of what happened, but nothing that I don't

[8]see that's different from what's in the medical record.

[9](Defendant's Exhibits 5 and 6 were marked for

[10]identification.)

[11]Q Deposition Exhibit 6, did you review and rely

[12]on that in formulating your opinions?

[13]A Yes, I did.

[14]Q What do you know that to be?

[15]A This is a -- I think it's a short summary of

[16]the events that happened surrounding the

[17]hospitalization. I think it was by his wife. I can't

[18]remember exactly what her **[*8] [**8]** name is.

[19]Q Did you review that before formulating your

[20]opinions in the case?

[21]A To the best I can remember, yes.

[22]Q Do you know when you got that?

[23]A I think the packet came together. This is what

[24]I had in the packet. So I don't know the date.

[25]Q Was there any correspondence that came in your

[9]

[1]materials that we can look back and figure out when it

[2]was?

[3]A Just the date on here. It was sent 9/27/05.

[4]Q So you have got an envelope, U.S. Mail

[5]envelope, that you received a packet of materials with

[6]respect to paper records, and those appear to have been

[7]sent to you on September 27, 2005.

[8]MS. KOROLL: Greg, I presented all correspondence.

[9]He didn't keep it, but I did print it off. And there

[10]was a letter of that date. He can tell if he got it or

[11]not.

[12]Q BY MR. SNYDER: Does this refresh your

[13]recollection about the letter that a company the

[14]original set of materials that you received in this

[15]case?

[16]A I can't remember specifically. I didn't have a

[17]copy of this letter. She actually just brought it. I

[18]can't remember.

[19]Q Let's mark the letter **[*9] [**9]** dated September 27, 2005

[20]with Exhibit 7, and then what we will try to do, just

[21]want to go through and recreate what was in this

[22]envelope.

[23](Defendant's Exhibit 7 was marked for

[24]identification.)

[25]Q Did you just get one packet of materials and

[10]

[1]then later get the films?

[2]A Yes.

[3]Q So there was two deliveries of materials to

[4]you, one when you got this envelope September 27, and

[5]later you got some CT films?

[6]A Correct.

[7](Defendant's Exhibit 8 was marked for

[8]identification.)

[9]Q BY MR. SNYDER: Okay. Marking as Deposition

[10]Exhibit Number 8, when did you get this document then?

[11]A This specific one, I can't remember if this was

[12]in my packet or if we just talked about it today. I

[13]remember reviewing this in the past. I can't remember

[14]what day I received it.

[15]Q Okay. So this was -- you don't recall how this

[16]was sent to you from the plaintiff's attorney?

[17]A I don't remember if we -- well, I guess I

[18]couldn't have talked about it before this. I think we

[19]talked about it and I can't remember if it was on e-mail

[20]or something. I checked my e-mail **[*10] [**10]** and erased my

[21]correspondence, so I didn't see any more, but I know, I

[22]didn't see it printed out but I saw it as an e-mail in

[23]going over my opinions.

[24]Q Okay. So this Deposition Exhibit 8 is a list

[25]of your opinions in the case; is that true?

[11]

[1]A Yes.

[2]Q And is the process that was employed in order

[3]to formulate those opinions was that you were sent a set

[4]of paper records at or around September 27, 2005; you

[5]reviewed those records; you discussed it with the

[6]plaintiff attorney on the phone, and she emailed back to

[7]you a draft of an opinion that looks like this

[8]Deposition Exhibit 8?

[9]A I am saying that I think that's how it was

[10]done. I know we spoke about it. I can't remember how

[11]many times.

[12]And regarding my opinions on the case, I

[13]honestly can't remember if there was something sent to

[14]me. I know this isn't it. I can't remember if it was

[15]sent to me or if it was actually e-mailed to me. But I

[16]remember seeing it.

[17]Q At some point did you review the opinions

[18]before they were sent out in the case?

[19]A Yes, and actually she was very adamant about

[20]that. **[*11] [**11]**

[21]Q Okay. Okay. The product of that review is

[22]what we have marked here as Deposition Exhibit Number 3?

[23]A I think that was your copy. It's the same

[24]copy.

[25]Q Three and eight are the same?

[12]

[1]A Uh-huh.

[2]MS. KOROLL: You know, I know there is one sentence

[3]difference between three and eight.

[4]Do you want me to --

[5]MR. SNYDER: That would be great.

[6]MS. KOROLL: It's embarrassing. It says "Mr.

[7]Hunt."

[8]"Mr. Hunt reserves the right to supplement his

[9]opinions if new information becomes available to him in

[10]the course of this litigation." On Deposition Exhibit 3

[11]that last sentence is not on this sentence, on this

[12]page.

[13]THE WITNESS: I guess it's not actually wrong

[14]because I am still in there, something --

[15]Q BY MR. SNYDER: With respect to the contents

[16]of the medical opinions on standard of care and

[17]proximate cause issues, it's your understanding that

[18]Exhibit 3 and Exhibit 8 are the same?

[19]A As best I can see, yes.

[20]Q And those accurately set out your opinions in

[21]this case, correct?

[22]A Yes.

[23]Q Exhibit 9 is the original **[*12] [**12]** letter that

[24]accompanied the materials you were sent September 27,

[25]2005.

[13]

[1]A Yes.

[2]Q Exhibit 10 is a copy of the Death Certificate

[3]in the case. Correct?

[4]A Yes, but I think there is another piece of it

[5]here.

[6](Defendant's Exhibits 9 and 10 were marked for

[7]identification.)

[8]Q Okay.

[9]A I'm sorry. That was just the autopsy report.

[10]But yes, that's all I received.

[11]Q Exhibit 10 was a one-page photocopy of the

[12]Death Certificate?

[13]A Yes.

[14]Q You received that in the September 27 packet?

[15]A Yes.

[16]Q Okay. Exhibit 11 is a copy of the autopsy

[17]performed. And you received that from the September 27

[18]packet as well?

[19]A Yes.

[20]Q In the September 27 packet, we have a

photocopy

[21]of the deposition of Dr. Roth; is that correct?

[22]A Yes.

[23]Q That's been marked as Exhibit 12; is that

[24]correct?

[25]A Yes, sir.

[14]

[1](Defendant's Exhibits 11 and 12 were marked for

[2]identification.)

[3]Q Were there any other materials in the September

[4]27, 2005 packet other than what we have just discussed?

[5]A No.

[6] **[*13] [**13]** Q Okay. Then at some point you received some CT

[7]films?

[8]A Yes, sir.

[9]Q Okay. We will just put it on the envelope, if

[10]that's all right with you.

[11]A That's fine.

[12]Q Deposition Exhibit 13 were the CT films you

[13]received. Those had bates numbers on them 1000 through

[14]1004?

[15]A Correct.

[16]MS. KOROLL: He doesn't know what a bates number

[17]is.

[18]Q BY MR. SNYDER: Numbered 1000 through 1004?

[19]A Actually there is 1005.

[20]Q There is five sheets?

[21]A Yes.

[22]Q Six sheets, three and three?

[23]A Absolutely.

[24](Defendant's Exhibit 13 was identified for the

[25]record.)

[15]

[1]Q Okay. Did you review the CT films that we have

[2]just marked as Exhibit 13 before you formulated your

[3]opinions in the case?

[4]A After I did.

[5]Q Have you reviewed the complete hospital chart

[6]from the Kishwaukee Hospital emergency room visit of Mr.

[7]Johnson of June 17, 2001?

[8]A Just what I had that's in the records that that

[9]was there.

[10]Q Only what's in this Deposition Exhibit 4,

[11]correct?

[12]A Yes, and I can't remember specifically what we

[13] **[*14] [**14]** talked about. We talked about bits and pieces of it

[14]today, and we talked about it before, but I didn't

[15]actually see the specific pieces of it.

[16]Q In addition to what's inside of Exhibit No. 4,

[17]you reviewed parts of the Kishwaukee reports, labs, that

[18]reflected the LDH level?

[19]A Yes.

[20]Q The dictated emergency room record of Dr.

[21]Gannon?

[22]A Yes.

[23]Q And the labs and Dr. Gannon's emergency

[24]dictation, those you reviewed today for the first time?

[25]A Yes, correct. I knew what the labs -- we

[16]

[1]talked about the labs before, but I hadn't actually seen

[2]it physically before today.

[3]Q Did you review any other part of the Kishwaukee

[4]records at any other time?

[5]A No, just what's here in that report.

[6]Q Okay. Have you reviewed any other depositions

[7]other than Dr. Roth's deposition?

[8]A There was -- I am pretty sure I looked at his

[9]wife's -- I think her name was Janet, her deposition,

[10]which I remember reading, but I don't have it. I'm not

[11]sure if it was sent here, sent on e-mail as an

[12]attachment. I looked at my files today. I don't

[13]remember looking at her **[*15] [**15]** --

[14]MS. KOROLL: Just a second.

[15](Interruption in proceedings.)

[16]Q MR. SNYDER: Did you review any other

[17]depositions in this case other than Dr. Roth's and

[18]potentially Mrs. Johnson's that you would have received

[19]on e-mail?

[20]A Not to my recollection.

[21]Q Do you have any draft copies of any reports

[22]concerning this case?

[23]A Let me check and see if there is a report in

[24]here. I can't remember if there is one concerning the

[25]CT because I never actually look at the reports. I

[17]

[1]can't remember if I received a report with this. I

[2]don't remember looking at it.

[3]Q You don't recall whether or not you read the

[4]radiology report from the head CT's?

[5]A I am not 100 percent sure. I'm not sure if it

[6]was something alluded to in the record, or if it was

[7]there. But I had to know somewhere or read somewhere

[8]exactly what the CT showed, but I can't remember

[9]specifically an exact radiology report.

[10]Q When you looked at the films, did you have any

[11]disagreement with what the radiologist read in the films

[12]and what you saw in the films?

[13]A The only thing I can remember **[*16] [**16]** is when I saw the

[14]films, what I thought I saw or what I thought would be

[15]the case, based on what I read. I can't remember if it

[16]was a radiology error or whatever it was. It was -- I

[17]mean, there is no way to know specifically until you

[18]actually see the films.

[19]Some people interpret things a little

[20]different. So it was a little more extensive than I

[21]thought, in one respect. Just something might have been

[22]said about the dimensions of the hemorrhage, and I had a

[23]little different perspective. But then when I saw the

[24]films, just a little thing -- depends how people read

[25]films different, how they describe it.

[18]

[1]Q When you were actually able to review the film

[2]and actually saw the film, the bleed that you saw was

[3]larger than what you had anticipated, based on your

[4]review of the records?

[5]A I can't say that specifically. But I know that

[6]when I looked at the films, I said, well, just because

[7]of the extent it went into the ventricular system -- I

[8]don't remember specifically reading it was in the

[9]ventricular system or couple other things. I saw just

[10]subtle differences, nothing terribly **[*17] [**17]** important, giving a

[11]picture exactly what there was. There was a little bit

[12]of blood in the posterior portion. I don't remember

[13]reading that specifically on any reports.

[14]Q Was the bleed more pervasive that you saw in

[15]film than you had anticipated, what you read in your

[16]review of the medical records?

[17]A No.

[18]Q Was it of the brain you didn't anticipate in

[19]your review of the medical records?

[20]A Just little things, inconsequential. Little

[21]bit of blood in the posterior part of the ventricle. In

[22]and of itself, not a big deal if it were missed.

[23]Q Kind of where I took off from, as a

[24]neurological surgeon, you look at the head CT for

[25]purposes of treating your patients; so you have

[19]

[1]education, training, and expertise to do that for a

[2]living?

[3]A Correct.

[4]Q And radiologists also read head CT films and

[5]write reports on those?

[6]A Correct.

[7]Q Now, when you looked at -- or did you ever

[8]undertake the effort to look at the films that were

[9]provided to you in this case, and then compare them to

[10]the radiologist report and see whether or not you agreed

[11] **[*18] [**18]** or disagreed with the findings of the radiologist?

[12]A It's a practice of mine that I really never

[13]look at the films, not to look at the films. I mean,

[14]look at the reports, unless there is something I

[15]personally don't see. And I look to the report. I

[16]don't see anything.

[17]Let me see if anyone else found something. I

[18]don't make a practice to look at the report. Throughout

[19]my training there is always discrepancies in the way

[20]people see things, which it be colleagues, radiologists,

[21]some people notice things that might not have any sort

[22]of relevance. If you ask two people if they look at it,

[23]the difference overall in the extent of what's going on

[24]is conveyed. Just people look at things a little

[25]differently.

[20]

[1]Q Would it be fair to say you did not see any

[2]significant difference between the films that you saw

[3]and the radiologist's report?

[4]A Not from what I read.

[5]Q Okay.

[6]Then the only CT films that you looked at are

[7]the six pages of CT films that are here in deposition

[8]Exhibit 13?

[9]A Yes.

[10]Q The ones from June 20, 2001?

[11]A Yes, sir.

[12] **[*19] [**19]** Q Were there any other materials that you

[13]reviewed or considered in formulating your opinion that

[14]we have not discussed and identified here today?

[15]A There was a report, I can't remember when I

[16]read it. But just from what I recollect, there was a CT

[17]done at the first hospital where he was that was read as

[18]normal or -- no, negative for hemorrhage, which I

[19]personally didn't see the CT for.

[20]Q You saw the radiology reports --

[21]A I can't remember specifically the radiology

[22]report. But I remember reading throughout the records

[23]and somewhere in the records there was a report that the

[24]head CT was negative. I can't remember if it was a

[25]report from the head.

[21]

[1]Q You saw some reference in the records that you

[2]reviewed that indicated he had a negative head CT at

[3]Kishwaukee?

[4]A Correct.

[5]Q And whether that was actually the Kishwaukee

[6]radiology report itself, or somebody in a consult note

[7]or history and physical, something like that?

[8]A Right. I can't remember specifically.

[9]Q Referring back to the Kishwaukee report, you

[10]saw something that indicated the head CT **[*20] [**20]** was negative?

[11]A Correct.

[12]Q You have not had an opportunity to read those

[13]head CT films yourself?

[14]A Correct.

[15]Q Are you relying on any verbal reports from the

[16]plaintiff's attorney or anybody else -- who that would

[17]be, I don't know -- in order to formulate your opinions

[18]in the case?

[19]Is there something not in these papers that

[20]you say, well, in addition to everything we looked at

[21]here, Greg, there is also I am told I am relying on that

[22]--

[23]A Let me think a minute.

[24]Best I can remember, everything we talked about

[25]was what's in the exhibits and the reports.

[22]

[1]Q Okay. All the things that formulate the basis

[2]of your opinion?

[3]A Correct.

[4]Q Did you conduct any measure of literature

[5]search in order to formulate your opinions in the case?

[6]A I am pretty sure I looked up something

[7]regarding anticoagulants used, but I can't remember the

[8]specific things. Just I am sure it was something to

[9]sort of check my knowledge, to see if there is anything

[10]new that I didn't know regarding the things that were

[11]used.

[12]Q What reference source **[*21] [**21]** did you utilize in order

[13]to check up on the --

[14]A Just googled the name of Lovenox, heparin,

[15]something like that. And I have used those things

[16]extensively in my training and practice. So I just

[17]probably looked see if there was anything else that was

[18]new, which those things have been around for a while.

[19]Nothing has changed for a while.

[20]Q Did you look at the manufacturer's -- the PDR?

[21]Strike that. Did you look at the PDR in order to see

[22]what is said about Lovenox, Plavix, heparin, TnKase?

[23]A No.

[24]Q Are you relying on any specific medical

[25]literature, text, journal, or otherwise as a basis for

[23]

[1]your opinions in the case?

[2]A No, sir.

[3]Q Back to the inventory then. Let me show you

[4]Deposition Exhibit 14. This appears to be a letter

[5]addressed to you dated December 15, 2005. Do you see

[6]that?

[7]A Yes.

[8]Q And it says, "Per my conversation with Terry."

[9]Who is Terry?

[10]A My assistant.

[11]Q I'm trying to inform you of the following CAT

[12]scan images of Denton Johnson. Does this letter seem to

[13]memorialize when it was that you would have received the

[14] **[*22] [**22]** CT films in the case?

[15]A Yes. I can't remember the specific date but it

[16]was around sometime in late December.

[17]Q Showing you Deposition Exhibit Number 15, looks

[18]like a letter from Plaintiff's Counsel dated November 8,

[19]2005. Is that accurate?

[20]A I don't remember specifically, but yes.

[21](Defendant's Exhibits 14 and 15 were

[22]marked for identification.)

[23]Q That letter asks whether or not you have made

[24]any notes concerning the case, would you agree?

[25]A Yes.

[24]

[1]Q Have you made any notes concerning your work or

[2]any of your opinions in the case?

[3]A No.

[4]Q You didn't make any notations in the records or

[5]depositions, things like that, that you can recall?

[6]A I don't think that I did. But if there is

[7]anything made, it would be just on the paperwork.

[8]Q Then showing you Deposition Exhibit Number 16,

[9]that's a copy of a letter looks like to you from

[10]Plaintiff's Counsel, dated November 30, 2005. Do you

[11]agree?

[12]A Yes.

[13]Q That asks -- that encloses at least according

[14]to it -- the deposition rider in the case?

[15]A Yes.

[16]Q So **[*23] [**23]** in light of all work we have done, I think

[17]we will run through this quickly. As we go through the

[18]paragraphs here, first one looks for all the records,

[19]documents, tangible items. We have identified all those

[20]to be reviewed.

[21]A Correct.

[22]Q Next, look for all things you consulted or

[23]reviewed in connection with the lawsuit. We discussed

[24]all those today?

[25]A Correct.

[25]

[1]Q Next, looks for your complete file pertaining

[2]to the lawsuit. Have you -- have we discussed and

[3]marked here your complete file concerning this lawsuit?

[4]MS. KOROLL: Other than anything e-mailed or --

[5]MR. SNYDER: Well, if there is other stuff, let me

[6]know and we will try to go through it.

[7]THE WITNESS: There was e-mail, but I actually

[8]looked before I tried to print something out and I think

[9]I must have erased it. My assistant tries to keep

[10]everything. She happened to be out on a family

[11]emergency.

[12]Q So you can supply it later?

[13]A Correct.

[14]Q With respect to the email, was it a substantive

[15]e-mail?

[16]MS. KOROLL: I have one, if it helps you. It's

[17]something that should **[*24] [**24]** have been given to you.

[18]Q BY MR. SNYDER: With respect to the e-mails

[19]that we are just not able to have available here today

[20]at the time of the deposition, those pertained solely to

[21]scheduling matters?

[22]A And I think there was one that -- I am pretty

[23]sure this was attached to one of the depositions or

[24]something.

[25]Q Deposition of Mrs. Johnson?

[26]

[1]A Yes.

[2]Q Other than the deposition of Mrs. Johnson and

[3]scheduling matters, we have all of the materials that

[4]you received in the case here today?

[5]A Yes, sir.

[6]Q And we have marked them?

[7]A Yes.

[8]Q Now, with respect to your file, do you or does

[9]your assistant, either one, keep track of your billing?

[10]A Yes, she does.

[11]Q So she would have information concerning the

[12]hours of billing?

[13]A Yes.

[14]MR. SNYDER: Can I mark this, Cindy?

[15]MS. KOROLL: Yes.

[16](Deposition Exhibit 17 was marked for

[17]identification.)

[18]Q BY MR. SNYDER: Then showing you Deposition

[19]Exhibit Number 17, this is a copy of the billing that

[20]you generated so far concerning this case?

[21]A I think **[*25] [**25]** there might be more, but my assistant

[22]actually takes care of all that. And I can supply the

[23]bill to you. I think I have -- there hasn't been any

[24]more checks I have cashed. I can supply any file things

[25]to you.

27

[1]Q Can she supply information concerning how much

[2]time you have put into the case thus far?

[3]A It should be all documented. But those are --

[4]that's the time that I billed for. I am sure that I

[5]spent more time here and there, just --

[6]Q What would that figure be? How many hours of

[7]time have you spent looking at the records in this case?

[8]A I can't say for sure.

[9]Q What's your best estimate in that regard?

[10]A Maybe seven or eight hours over the last four

[11]or five months. I don't know for sure. Maybe more. I

[12]don't know.

[13]Q It's in that order?

[14]A Yes.

[15]Q Then going through the list here, we have gone

[16]through and marked all correspondence other than the

[17]emails concerning scheduling that you have received

[18]concerning the case; is that correct?

[19]A Yes.

[20]Q And you have not made any notes concerning the

[21]case; is that correct?

[22] **[*26] [**26]** A Correct.

[23]Q All right. And you are going to provide us at

[24]some later point copies of any other bills above and

[25]beyond what we have marked?

28

[1]A Yes.

[2]Q Have you acted as expert witness in the past

[3]at some point other than this case?

[4]A Yes, I have.

[5]Q How many times have you been an expert in a

[6]medical malpractice case, let's say?

[7]A Best I can remember, twice.

[8]Q When is the last time you would have acted as

[9]an expert in a medical malpractice case?

[10]A Well, I was deposed, I gave a deposition

[11]probably about a month ago. And I have another case I

[12]am reviewing as we speak.

[13]Q Are those the two cases --

[14]A Then the other one was -- I think it was about

[15]a year ago.

[16]Q So a total of four cases then, this one and

[17]three others?

[18]A Yes.

[19]Q What I thought I might do is ask you some

[20]questions -- have you formulated in this case an opinion

[21]to a reasonable degree of medical certainty as to

[22]precisely when the intracranial bleed occurred in this

[23]gentleman?

[24]A I don't think I can say specifically the time

[25]within a reasonable **[*27] [**27]** degree of medical certainty when it

29

[1]happened.

[2]Q Can you put any kind of time window on when you

[3]think it most likely occurred, or is that something we

[4]are not able to do?

[5]A Well, yes and no. Part of the problem is that

[6]you can have an intracranial hemorrhage without -- you

[7]can have an intracranial hemorrhage and then start

[8]developing symptoms later. Just kind of depends where

[9]exactly the intracranial hemorrhage is. You can have a

[10]hemorrhage and start developing symptoms immediately.

[11]So it depends on if it's a small hemorrhage that grows,

[12]or if it's a very large hemorrhage at the time of

[13]inception of the hemorrhage.

[14]So there is no way you can pinpoint the exact

[15]time unless you kind of go back looking at the film,

[16]extrapolate, and say, "Well, we scanned him an hour

[17]after he started having symptoms, this hemorrhage is

[18]really huge. This is what happened."

[19]Other than that, I don't think you can say

[20]specifically.

[21]Q All right. Let's take a look at your CV then.

[22]I don't need --

[23](A discussion was held off the record.)

[24]Q So you are currently working **[*28] [**28]** at the Maxine

[25]Dunitz --

30

[1]A Dunitz.

[2]Q -- Neurological Center; is that correct?

[3]A I guess you could -- Neurosurgical Institute.

[4]Same thing.

[5]Q Who is your actual employer?

[6]A Cedars-Sinai.

[7]Q How long have you been working here at Cedars

[8]Sinai?

[9]A I started working here in July of 2004.

[10]Q Is this your first job outside of your

[11]residency?

[12]A Yes, it is.

[13]Q Have you obtained board certification yet in

[14]neurological surgery?

[15]A No, I haven't.

[16]Q At this point, year and a half, are you

[17]currently board eligible?

[18]A Yes, I am.

[19]Q Have you begun the process of undertaking board

[20]certification?

[21]A Yes, I have.

[22]When you finish with neurosurgical training,

[23]you have to pass the written boards to actually finish.

[24]Then you take your oral boards. You have to collect

[25]your cases for a year after you finish, and then you can

[31]

[1]apply for sitting for oral boards. And you have up to

[2]five years to get that done before you have to take the

[3]written exam again.

[4]Q Have you -- now you are a year and a half **[*29] [**29]** out.

[5]Have you collected your oral cases in order to sit for

[6]oral boards yet?

[7]A Yes.

[8]Q When are you planning to do that?

[9]A Sometime this year.

[10]Q 2006?

[11]A Yes.

[12]Q That will be your first attempt with respect to

[13]your oral boards?

[14]A Correct.

[15]Q And that oral board is done once a year?

[16]A You know, I'm not exactly sure how many times a

[17]year that is done.

[18]Q Have you signed up to have it done?

[19]A I haven't signed up to have it done yet.

[20]Q Your residency was in Philadelphia at Thomas

[21]Jefferson hospital?

[22]A Yes.

[23]Q That's a five-year residency for neurosurgery?

[24]A Yes, includes a year for internship, so six.

[25]Q So then in 2001, where would you have been in

[32]

[1]your training then, with respect to neurological

[2]surgery?

[3]A I would have been in my -- you are asking me to

[4]count?

[5]Q In your second year of your five-year

[6]residency?

[7]A I would be a third year resident.

[8]Q Okay.

[9]A That actually depends what time of year it was.

[10]If it was spring, it would be third.

[11] **[*30] [**30]** Q How about June?

[12]A I would be changing, just changing over to

[13]fourth.

[14]Q On your CV there is some publications listed.

[15]Are any of those relevant, pertinent to the issues in

[16]this particular lawsuit?

[17]A No.

[18]Q Have you undertaken any research or writing or

[19]participated in any studies specific to any of the

[20]issues in this lawsuit?

[21]A No, I haven't.

[22]Q With respect to your practice profile, how

[23]would you apportion that, in approximation, with respect

[24]to all the different types of care that neurosurgeons

[25]provide?

33

[1]A I would say I am -- intracranial hemorrhage

[2]that neurosurgeons at a level one trauma center is

[3]probably one of the most common things seen for patients

[4]coming in.

[5]Q Is the care of intracranial hemorrhage -- does

[6]that comprise the majority of your practice profile?

[7]A No, but I see a lot of intracranial hemorrhage

[8]because one of my areas of expertise is vascular

[9]surgery. I see a lot aneurysms. I see a good deal of

[10]intracranial hemorrhages, not counting the traumas and

[11]patients with intracranial hemorrhages that are

[12]transferred **[*31] [**31]** in.

[13]Q You are part of a neurosurgery group?

[14]A Yes.

[15]Q It's a nine physician group?

[16]A Yes, I think it's nine now.

[17]Q Among the physicians, do you all apportion

[18]work? Different guys have different positions,

[19]different specialties within neurological surgery?

[20]A Yes.

[21]Q Within that, do you -- is it accurate that your

[22]specialty is in dealing with spinal cord problems?

[23]A My part of my specialty is dealing with spinal

[24]cord problems. The issue is with us guys, the younger

[25]guys, three of us just coming out of training, we have

[34]

[1]areas of specialty but do a little bit of everything,

[2]except for some guys that have specific areas.

[3]One of my specific areas is skull based

[4]surgery. I am the one guy here, along with my boss,

[5]that actually does skull-based surgery. With regard to

[6]vascular surgery I am -- I have a senior partner that

[7]actually is our vascular neurosurgeon. But I am part of

[8]the neurosurgery team. I do a lot of work with my

[9]brother.

[10]Q 80 percent of your practice is dealing with

[11]spinal cord problems?

[12]A Not spinal cord problems. **[*32] [**32]** I would say if I had

[13]to choose a number, probably the majority of my elective

[14]practice is dealing with spine issues.

[15]Q What about your practice in total?

[16]A My practice in total, I haven't done the exact

[17]numbers. But transfers that I get in are only dealing

[18]with intracranial hemorrhage and tumor, so I can't quote

[19]you specifics in regard to a number with that.

[20]Q So it would not be accurate to indicate that 70

[21]to 80 percent of your practice profile in total is

[22]comprised of spinal cord problems?

[23]A Right.

[24]MS. KOROLL: Asked and answered.

[25]THE WITNESS: Correct.

35

[1]MR. SNYDER: Okay.

[2]THE WITNESS: But just from the national numbers,

[3]unless you are totally very subspecialized, the average

[4]neurosurgeon around the country that's the quoted number

[5]of cases based on a -- you know, each neurosurgeon,

[6]unless you are only doing brain tumors. Majority of

[7]neurosurgeons around the country does more spine

[8]problems than anything else in regard to neurosurgery.

[9]Q Spine work comprises the majority of your

[10]practice?

[11]MS. KOROLL: Asked and answered.

[12] **[*33] [**33]** MR. SNYDER: Or it doesn't.

[13]THE WITNESS: If you are saying does it comprise 51

[14]percent of my practice, sure. I haven't done the

[15]numbers, but I would say yes.

[16]Q BY MR. SNYDER: Okay. Are you licensed as a

[17]nurse anywhere, or have you ever been licensed as a

[18]nurse at any time?

[19]A No, sir.

[20]Q Did you attend nursing school for purposes of

[21]nursing at any time?

[22]A No, I didn't.

[23]Q Have you ever worked in any health care

[24]environment as a nurse?

[25]A No, sir.

36

[1]Q Have you ever worked in any health care

[2]environment as a cardiologist at any point?

[3]A No, sir.

[4]Q Are you board certified or board eligible in

[5]the area of cardiology?

[6]A No.

[7]Q Have you ever undertaken a residency or a

[8]fellowship in cardiology?

[9]A No.

[10]Q What is the -- if you know, what is the

[11]difference in the education and training of a

[12]neurological surgeon when compared to a cardiologist?

[13]How are they different?

[14]A You mean just post medical school?

[15]Q Yes.

[16]A I don't know the exact number of years that the

[17]cardiologists spend in their **[*34] [**34]** training. I know they do a

[18]medicine residency, and then have to subspecialize.

[19]I don't know the exact numbers in regard to

[20]where it's different from neurosurgery. I don't think

[21]the years are different. It's just the surgical

[22]training, and they are two separate specialties.

[23]Q Do neurological surgeons undergo different post

[24]medical school training than cardiologists?

[25]MS. KOROLL: Objection, foundation.

37

[1]THE WITNESS: Yes.

[2]Q BY MR. SNYDER: How is it different?

[3]A One is a surgical subspecialty and the other is

[4]not.

[5]Q Which one is a surgical subspecialty?

[6]A Neurological surgery.

[7]Q Are they different in any other manner that you

[8]are aware of, other than what you have just indicated?

[9]A Yes.

[10]Q How is that?

[11]A The training in neurological surgery is more

[12]comprehensive than cardiology.

[13]Q More comprehensive with respect to heart?

[14]A No, more comprehensive in regard to total

[15]patient care.

[16]Q Do cardiologists have additional training on

[17]cardiac issues that neurological surgeons don't have?

[18]A I am sure they **[*35] [**35]** do.

[19]Q Do you in your practice make decisions about

[20]whether or not to order thrombolytic care with impending

[21]MI?

[22]A If it is pertaining to the brain, yes.

[23]Q In your practice, are you called in frequently

[24]in the emergency room in order to make the

[25]differentiation as to whether or not somebody should be

38

[1]given the medication TnKase?

[2]A Not unless they have a neurologic problem.

[3]Q That occurred to make the determination as to

[4]whether or not a particular patient should or should not

[5]be given the medication TnKase?

[6]A I have been called in to determine whether a

[7]patient should be given nonspecific TnKase, when it

[8]comes to specifically stroke in the brain.

[9]Q Okay. Not to interrupt myocardial infarction,

[10]but to interrupt a clot in the brain?

[11]A Correct.

[12]Well, not a blood clot but an embolic

[13]phenomenon.

[14]Q So as far as being consulted about whether or

[15]not a patient should or shouldn't get TnKase in the

[16]emergency room environment in response to what is

[17]presumed to be an MI, you are not called in to make that

[18]decision; is that accurate?

[19] **[*36] [**36]** A Not unless there is something neurologic

[20]involved.

[21]Q I mean, has it happened to you in the past

[22]where there was been something neurologic involved and

[23]you have been involved in the decision to give somebody

[24]thrombolytic therapy in response to MI?

[25]A I can't remember the specific time, but yes.

39

[1]Q What is the decision criteria that you utilized

[2]in making a determination to whether or not it's safe to

[3]give somebody thrombolytic therapy?

[4]A Reason I was called in the past, a patient had

[5]some intracranial process, more so stroke than anything

[6]else, and I was asked to give my opinion whether it be

[7]reasonable to give some kind of thrombolytic, if there

[8]is a thought something is going on with the heart

[9]because of the possibility of bleeding into the brain

[10]because of the size of the stroke.

[11]Q What were the concerns that you considered with

[12]respect to weighing in on that decision?

[13]A Some of the concerns would be if there is any

[14]sign of hemorrhage in the brain or the size of a stroke

[15]that would be seen from the risk of giving thrombolytic

[16]therapy and giving thrombolytic **[*37] [**37]** conversion of the

[17]stroke.

[18]Q Would it be thrombolytic therapy if this was to

[19]the size of the hemorrhage in the brain?

[20]A Yes.

[21]Q Why is that?

[22]A Because the chance of causing a larger

[23]hemorrhage with neurologic sequela is increased.

[24]Q I wanted to go through and get your rate for

[25]review of records, deposition, and trial testimony with

40

[1]respect to this case, if you know.

[2]A I am trying to think. I give my assistant

[3]autonomy. I think --

[4]Q Is it reflected in the bill?

[5]A Yes.

[6]Q Okay.

[7]A Okay. So if my retainer fee, it's -- it was

[8]$ 2,000. And that's time spent reviewing records and

[9]supposedly two hours of reviewing it.

[10]Q Okay.

[11]A Then for deposition it's a thousand dollars an

[12]hour.

[13]Q Then for trial, what are your charges for trial

[14]testimony?

[15]A I don't know. I haven't been to trial yet.

[16]Probably somewhere about the same it depends on if I

[17]were -- if I had to go somewhere out of town. If it

[18]were here, how much time it would take away from my

[19]practice.

[20]Q So either a thousand dollars an hour or

[21] **[*38] [**38]** potentially more, depending upon what's involved for

[22]trial testimony?

[23]A An estimate, maybe like five.

[24]Q You met today with plaintiff's attorney to

[25]discuss this case today?

[41]

[1]A Yes.

[2]Q Approximately how long was your meeting?

[3]A Maybe about -- I was late. Maybe about half

[4]hour or so.

[5]Q In addition to your half hour face to face

[6]meeting today, did you have any other face to face

[7]meetings with plaintiff's Counsel?

[8]A First time I have seen her.

[9]Q Did you have some discussions on the phone at

[10]some point?

[11]A We talked on the phone. I can't remember.

[12]It's been a while. I can't remember exactly what we

[13]talked about. Just probably something about sending

[14]records or something like that. And then I can't

[15]remember, we talked about my opinions in the case. We

[16]discussed them, which we alluded to earlier, but I can't

[17]remember what else we talked about.

[18]Q All right. What I would like to do is learn

[19]from you some basic understanding of what you would like

[20]to call the process that went on with this gentleman's

[21]-- do you want to call it an intracranial **[*39] [**39]** hemorrhage?

[22]How would like to refer to --

[23]A It's an intracranial hemorrhage.

[24]Q ICH?

[25]A Or intracerebral hemorrhage.

[42]

[1]Q What in the general patient population are the

[2]risk factors for intracranial hemorrhage?

[3]A You want an exhaustive list?

[4]Q What are the ones that come to the top of your

[5]head? No pun intended.

[6]A We can start with the most common is trauma.

[7]Other risk factors are if you have any kind of bleeding

[8]disorder, hemophilia, anything like that. Allowed the

[9]different medical problems, low platelets, medical

[10]issues that you can have. You have increased risk with

[11]high blood pressure. Of course, if you have any other

[12]pathology like tumors, vascular abnormality. There is

[13]an exhaustive list of those.

[14]Q Is it fair to say that the most common cause of

[15]intracranial hemorrhage is in the United States is

[16]hypertension?

[17]A I don't know the numbers, but I would have to

[18]say I think probably trauma.

[19]Q Trauma would be the number one cause for

[20]intracranial hemorrhage in the United States?

[21]A That's off the top of my head. I don't know

[22] **[*40] [**40]** the exact numbers.

[23]Q Then after trauma, hypertension would be the

[24]next most common cause of intracranial hemorrhage?

[25]A It's common that we see it, but I can't say

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[1]where it falls in the whole list of things. But I would

[2]say it's -- unless you have any underlying abnormality,

[3]which is rare -- tumors, things like that.

[4]Q Is a head trauma a contraindication to

[5]thrombolytic therapy?

[6]MS. KOROLL: Objection, form.

[7]Q BY MR. SNYDER: In your opinion?

[8]A It all depends if there is any visualized

[9]hemorrhage.

[10]Q It there is a visualized hemorrhage, then head

[11]trauma is an absolute contraindication to thrombolytic

[12]therapy?

[13]A Correct.

[14]Q In the case there isn't a head trauma, is a

[15]contraindication to thrombolytic therapy, in your

[16]opinion?

[17]A It would depend how bad the head trauma is.

[18]I would say if you don't actually see a

[19]hemorrhage on the film, then you probably say to go

[20]ahead with any kind of anti-coagulation.

[21]Q How is it that hypertension is related to

[22]intracranial hemorrhage? Why is there that

[23]relationship?

[24]A Well, **[*41] [**41]** there is difference places in the brain

[25]that you usually see hypertension hemorrhage. And there

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[1]is a couple different spots. One of the most common

[2]spots is what we call a basal ganglion, and that's

[3]usually because there is an area of high pressure,

[4]larger vessels going right into very small vessels. And

[5]I guess to name them specifically doesn't matter. But

[6]basically, that's an area where as people have

[7]hypertension, over years of having this, they can have a

[8]hemorrhage in that certain area because of the pressure

[9]differential in those vessels.

[10]Q Are you able to specifically identify where,

[11]geographically, in the brain the bleed occurred in this

[12]gentleman from looking at the CT films?

[13]A It occurred in the -- appeared to be the right

[14]frontal lobe.

[15]Q Specifically with respect to what vessel is it

[16]accurate that the hematoma itself obscures the ability

[17]to be able to determine exactly where the bleed

[18]occurred?

[19]A You can never say specifically which vessels

[20]unless there was some kind of vascular abnormality, like

[21]an aneurysm, to say "Here is the vessel that ruptured,"

[22] **[*42] [**42]** most of the time there is not a specific big vessel

[23]unless there is an abnormality there.

[24]Q Mechanically, how is it this hypertension is

[25]related to hemorrhage? What is it hypertension does to

[45]

[1]the walls of the vessels?

[2]A I think when I was talking about the smaller

[3]vessels, it forms little small aneurysms in the vessels

[4]so that after constant years of really out of control

[5]blood pressure, you can get hemorrhage.

[6]Q When you say out of control blood pressure,

[7]what blood pressure values are you talking about?

[8]A All the times that I can remember seeing

[9]someone with hypertension hemorrhage, they actually come

[10]into the hospital with blood pressure over 200. So

[11]extremely high. I don't know on a daily basis what that

[12]is. I can just judge that based on what I see and what

[13]the blood pressure is at that time.

[14]Q Do you recall -- at least, in your career thus

[15]far -- reading any literature that would indicate that

[16]hypertensive hemorrhages occur with blood pressures at a

[17]significantly lower level than that?

[18]A Not that I can recall. And just from -- I have

[19]read about hypertensive **[*43] [**43]** hemorrhages,

of course, through

[20]my training. And from my recollection, it's in people

[21]that actually have extremely elevated high blood

[22]pressure.

[23]Q With respect to trauma, how is it that trauma

[24]is related to intracranial hemorrhage mechanically?

[25]A Just depends on the trauma and the age of the

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[1]patient. If it's a younger patient, they usually have

[2]-- actually the most common type of intracranial

[3]hemorrhage is something called subarachnoid hemorrhage.

[4]That's usually the most common you see. You can have

[5]intracerebral --

[6]MS. KOROLL: You talked about subarachnoid bleed

[7]and you talked about intraparenchymal bleed.

[8]THE WITNESS: So that just depends on the exact

[9]force with which the trauma occurred.

[10]Q BY MR. SNYDER: How is it that trauma was

[11]related to an intraparenchymal bleed?

[12]A Well, when whatever type of trauma that you

[13]have, it exerts some kind of force on the skull, so the

[14]brain is mobile within the skull, so delicately. So you

[15]can have hemorrhages within the skull based on the force

[16]of trauma exerted on it.

[17]Q And you had mentioned hemophilia as being **[*44] [**44]** in

[18]your list of potential causes of intracerebral

[19]hemorrhages. Would being on active anticoagulation

[20]therapy be on that list of potential causes for

[21]intracranial bleed as well?

[22]A Sure.

[23]Q Why is that?

[24]A Well, it's because the blood is now a lot more

[25]thin. So whereas any type of process that you might

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[1]have going on might not normally cause you to have an

[2]intracranial hemorrhage, when your blood is a lot more

[3]thin, that's more likely to happen.

[4]Q When you utilize the word hemorrhage, that

[5]refers to blood outside of the vessels?

[6]A Yes.

[7]Q Mechanically, how is it that blood gets outside

[8]of the vessels when you are on anticoagulation therapy?

[9]A Well, I don't know specifically in regard to

[10]being in there, but the point is that there is very

[11]small vessels that rupture. And you can't actually tell

[12]with imaging studies which little small vessels

[13]ruptured.

[14]But the mechanism is when the blood is thinner,

[15]it gives you more propensity to bleed, not just in your

[16]brain but the smaller vessels I don't think it makes

[17]them more fragile; it's just that **[*45] [**45]** when you might have

[18]small vessels that rupture, whereas normally wouldn't

[19]continue bleeding, clot quickly when your blood is

[20]thinner, blood clots off quickly, whether it's arm, leg,

[21]anywhere else.

[22]Q So the anticoagulation therapy doesn't cause

[23]the rupture; it precludes the clot?

[24]MS. KOROLL: Objection.

[25]Q BY MR. SNYDER: I'll repeat the question. The

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[1]anticoagulation therapy doesn't cause a rupture of the

[2]vessel. It precludes the clotting, once there has been

[3]a rupture of the vessel. Or if that's not accurate,

[4]tell me so.

[5]A I don't think anyone truly knows the

[6]physiology, the end physiology behind what exactly

[7]causes the bleeding. We know when it starts bleeding

[8]you can't -- the blood is thinner, so it continues

[9]bleeding; doesn't go through that cascade of clotting.

[10]Q Mechanically, how intraparenchymal bleed occurs

[11]in the presence of anticoagulation therapy, you don't

[12]believe that anybody has the specifics on the mechanics

[13]behind that?

[14]A Well, the problem is with all hemorrhages there

[15]are people that have spontaneous hemorrhages, you can't

[16]find anything **[*46] [**46]** contributing from it or leading to it.

[17]Q With respect to intraparenchymal hemorrhage,

[18]you will agree that, at least in your opinion, nobody

[19]knows the specifics as to the mechanics of about how it

[20]is that anticoagulation therapy causes a hemorrhage in

[21]that area?

[22]MS. KOROLL: Objection, form.

[23]THE WITNESS: I am not arrogant enough to say I know

[24]everything, but from my personal knowledge I personally

[25]don't know the pathophysiology behind it. Someone might

49

[1]know, but I have never read anything about that in

[2]detail.

[3]Q BY MR. SNYDER: Intraparenchymal bleeds --

[4]cranial bleeds, rather -- can occur for unknown causes,

[5]correct?

[6]A Sure.

[7]Q They can be sometimes idiopathic in nature,

[8]correct?

[9]MS. KOROLL: Objection, form.

[10]THE WITNESS: Well, there are times when for one

[11]reason or another we don't need to pursue trying to find

[12]it specifically, or there are some things that are

[13]actually found on autopsy that we don't pursue because

[14]of course, if the person is still alive, we are not

[15]going to go and take a piece of their brain and try and

[16]figure out why. **[*47] [**47]**

[17]Lot of times someone hemorrhages and it doesn't

[18]show up on imaging studies, so you don't really pursue

[19]it.

[20]Q BY MR. SNYDER: Sometimes people have

[21]intracranial hemorrhage in your experience, and they

[22]don't have any other risk factors for it; is that

[23]accurate?

[24]MS. KOROLL: Objection, form.

[25]THE WITNESS: That's an interesting question from 50

[1]the standpoint that it seems simple and basic. But I

[2]was trying to think back into all the people I have seen

[3]and dealt with that have had intracranial hemorrhage.

[4]Once you are past a certain age, there is a reason

[5]lurking around.

[6]Q BY MR. SNYDER: What age is that?

[7]A People say if you are -- people that are

[8]greater than 60, 65, have increased amyloid angiopathy,

[9]there is a deposition of amyloid from the vessels.

[10]What happens is that a patient comes in who is

[11]a lot older, and they will say "There is nothing we can

[12]find, either aneurysm, something like that,

[13]attributable." That, usually you find that on autopsy

[14]or biopsy, but usually in the much older population.

[15]Q You said it three questions away. Would you

[16] **[*48] [**48]** agree that sometimes patients have intracranial

[17]hemorrhage and the cause is unknown?

[18]MS. KOROLL: Objection, form. Incomplete

[19]hypothetical.

[20]A I think that sometimes it is unknown. And this

[21]is just in my sort of how can I say -- experience, that

[22]there are a lot of times when people don't pursue

[23]looking for another cause. Yes, it's written off as

[24]unknown.

[25]Q And an intra cranial hemorrhage can occur in a

[51]

[1]patient in the absence of any wrongdoing or negligence

[2]on the part of the health care providers.

[3]MS. KOROLL: Objection.

[4]Q BY MR. SNYDER: Intracranial hemorrhage can

[5]occur in the absence of any wrongdoing or negligence on

[6]the part of health care providers?

[7]MS. KOROLL: Incomplete hypothetical, relevance.

[8]THE WITNESS: Well, if an intracranial hemorrhage

[9]can occur spontaneously without really finding much of a

[10]reason for it, depending how you look for it or look

[11]into it, I guess that's possible.

[12]Q BY MR. SNYDER: Okay. There is a certain

[13]incidence of people who are on thrombolytic therapy who

[14]experience intracranial hemorrhage and incidence rate

[15] **[*49] [**49]** for that, is that accurate?

[16]A Yes.

[17]Q What do you understand that to be?

[18]A I don't know the numbers on that.

[19]Q Do you have any reasonable estimate as to the

[20]percentage of patients who experience intracranial

[21]hemorrhage who are on the medication TnKase?

[22]A I don't remember the current literature on

[23]that.

[24]Q Do you have any information as to what the

[25]incidence is of intracranial hemorrhage for patients who

[52]

[1]are undergoing heparin therapy of the specific type that

[2]Mr. Denton Johnson was undergoing?

[3]A I don't have numbers of that either.

[4]Q As far as what the incidence rate is for

[5]patients undergoing heparin therapy of the type Mr.

[6]Johnson went on who have received TnKase, do you know

[7]what the incidence is of intracranial hemorrhage in that

[8]patient population?

[9]A The only thing I can tell me you, I don't know

[10]the specific numbers. Only thing I can tell you is from

[11]my experience, grossly, just from being in meetings and

[12]talking with neurologists and dealing with issues

[13]surrounding thrombolytic therapy for the brain, and also

[14]using heparin with **[*50] [**50]** whatever thrombolytic therapy and the

[15]risk of hemorrhage, of intracranial hemorrhage is

[16]increased definitely with use of thrombolytic therapy.

[17]But it's increased even more. I can't quote

[18]the exact literature, but in patients that are on

[19]thrombolytic therapy, that have received thrombolytic

[20]therapy, that have supranormal coagulation values, I

[21]can't quote the exact numbers.

[22]But I know that when I trained in Thomas

[23]Jefferson definitely we had one of the biggest vascular

[24]centers in the country. Lot of patients come in with an

[25]acute occlusion of their intracranial vessels. And I

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[1]was taught in training, and also this was gone over with

[2]neurologists -- we would have meetings on it. We would

[3]watch the levels very closely. Because as a resident

[4]training, that would be the one call you get every night

[5]about a patient coagulation, and we would use activated

[6]clotting time when patient were actually getting

[7]therapy, thrombolytic therapy, and also heparin, we

[8]wanted to make sure they didn't go a little higher

[9]because there is increased risk of hemorrhaging. That

[10]was one of the things that stuck **[*51] [**51]** with me throughout my

[11]training, it was for those five years, because it was

[12]one of the biggest things we had a problem with.

[13]Q Do you have any opinion or information as to

[14]the incidence rate of intracranial hemorrhage in

[15]patients who have high blood pressure?

[16]A I don't have -- I don't know the exact numbers

[17]on that.

[18](Brief recess.)

[19]MR. SNYDER: Last question was about incidence

[20]rates of patients with hypertension.

[21]THE WITNESS: I don't know the exact numbers.

[22]Q BY MR. SNYDER: Do you know the incidence rates

[23]for patients who experience intracranial hemorrhage who

[24]have received or experienced head trauma?

[25]A I don't know the exact numbers on that either.

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[1]Q Do you have any opinion as to the approximate

[2]numbers?

[3]A It's variable. Depends on what kind of trauma.

[4]Q Are you aware of any history of a head trauma

[5]in this particular patient?

[6]A Not that I have read in the records.

[7]Q You mentioned that a gap in time can occur in

[8]between the time when a bleed takes place and when

[9]symptoms of a bleed are clinically evident; is that

[10] **[*52] [**52]** accurate?

[11]A Yes.

[12]Q And additionally a bleed can occur and then the

[13]symptoms can be clinically evident immediately at the

[14]time of the bleed; correct?

[15]A Correct.

[16]Q That's dependent upon the size of the hematoma

[17]itself, and the pressures that it may or may not create.

[18]MS. KOROLL: Object. It's an incomplete

[19]hypothetical.

[20]Q BY MR. SNYDER: Does it depend on size,

[21]location, and the pressures, or are there any other

[22]variables?

[23]A There is a lot of variables.

[24]Q What are the other variables? If you can set

[25]those out, set out whether or not you are going to see

55

[1]symptoms in a patient immediately at the time of their

[2]intracranial hemorrhage.

[3]MS. KOROLL: Form, relevance.

[4]Q BY MR. SNYDER: Or whether they will be

[5]delayed?

[6]A There is no way to tell specifically. And the

[7]ones I am going to mention, they might be inclusive, but

[8]they can be taken separately and they would include size

[9]of hemorrhage, location of the hemorrhage, and -- pretty

[10]much location and size, those two factors will determine

[11]if there was pressure in the head.

[12] **[*53] [**53]** Q Now, the size and location of the bleed that

[13]you saw in Mr. Denton Johnson's CT films, were those in

[14]an area and of a size that they would create sufficient

[15]pressure to result in immediate clinical symptoms of an

[16]intracranial hemorrhage?

[17]A It's not just pressure. It depends on the area

[18]specifically, so it cannot be -- and that's relative.

[19]It cannot give you pressure from the standard point.

[20]You might be thinking about like total increased

[21]pressure inside the head.

[22]If you have you a small focal hemorrhage in

[23]your speech center, there is really no pressure. But

[24]you know, it could cause you to have problems with

your

[25]speech, so.

[56]

[1]Q I am trying to speed up, and I misspoke.

[2]A That:s all right.

[3]Q Okay. The size and location of the

[4]intracranial hemorrhage that you saw on Mr. Denton

[5]Johnson's films, were they such that you would expect to

[6]see immediate clinical symptoms of an intracranial

[7]hemorrhage?

[8]MS. KOROLL: Objection, form, incomplete

[9]hypothetical.

[10]THE WITNESS: It's variable. All depends on the

[11]size of it and the location. Yes, you can expect **[*54] [**54]** to see

[12]-- it's variable. You can see symptoms immediately or

[13]delayed. So there is no way to know specifically.

[14]Q BY MR. SNYDER: Talking about his films?

[15]A Right, I'm talking about his films.

[16]Q So his films are such that you can't, from just

[17]looking at these films, tell me whether or not there

[18]would be clinical signs and symptoms of an intracranial

[19]bleed, even at the time this first CT film was taken?

[20]A At the time the first CT was taken, I would

[21]expect to see some symptoms based on what I saw there,

[22]yes.

[23]Q Would you respect to see immediate symptoms

[24]based upon the size and location of the bleed that you

[25]saw on his CT films?

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[1]A Right. Say for instance if he began to have

[2]symptoms right now, five minutes later I got a CT scan,

[3]I see the hemorrhage, why he developed the symptoms.

[4]Does that make sense?

[5]Q May make perfect sense. Don't let me be the

[6]judge of that question. I'm trying to figure if it

[7]makes sense to you or not.

[8]A I can explain better.

[9]Q Here is my question. When you look, there is

[10]two sets of films here you reviewed, both **[*55] [**55]** from June 20.

[11]A Correct.

[12]Q One of them was taken in the morning. Other

[13]one was taken in the evening.

[14]A I don't remember specifically the times. I am

[15]not sure I didn't differentiate the time.

[16]Q Whatever the earlier one is, the earlier set of

[17]CT films, do you agree that those films reflect someone

[18]who you would expect to see clinical signs and symptoms

[19]of an intracranial hemorrhage?

[20]A Yes.

[21]Q What clinical signs and symptoms would you

[22]expect to see in a person who has these specific images,

[23]these images?

[24]A Well, there are a number of symptoms you could

[25]have and some of them are based on the exact

location of
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[1]the hemorrhage, and some are based on the possible

[2]pressure might be exerting on other parts of the brain.

[3]With the hemorrhage that size in that area you

[4]can have changes in your level of consciousness. You

[5]can have symptoms you couldn't have with frontal lobe

[6]damage, which are a couple of lobe things, basically

[7]responsible for personality. You can have changes in

[8]your personality. Some people have changes in their --

[9]where it affects **[*56] [**56]** their crying, when they have been

[10]crying at inappropriate times.

[11]And there can be other changes, such as the

[12]micturation center, which is responsible for control of

[13]urination. You can see persons incontinent with damage

[14]to the micturation center. There can be problems with

[15]acting appropriately, saying inappropriate things, using

[16]profanity when they normally wouldn't, overall kind of

[17]strange or different behavior, where normally they would

[18]have behaved normally if there wasn't hemorrhage there.

[19]Q Are there any other signs of intracranial

[20]hemorrhage that you would expect to see in somebody who

[21]had a set of head CT scans like this, other than what

[22]you just set out?

[23]A I don't understand.

[24]Q What things, other than being incontinent,

[25]changes in personality, what other clinical signs and
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[1]symptoms would you expect to see in somebody who has a

[2]head CT such as this, changes in consciousness,

[3]personality, inappropriate behavior --

[4]A Depends on the pressure. It's anything that is

[5]controlled by the right side. Only thing I would say

[6]that you probably wouldn't see which might **[*57] [**57]** be hard to

[7]differentiate in a person that might have some changes

[8]in the level of consciousness, is a lot of affect to the

[9]visual apparatus, because that's back in the occipital

[10]lobe.

[11]In that process, it's the same things. Most

[12]people who are left-side dominant wouldn't see a lot of

[13]speech difficulty, things like that. You can have

[14]problems with sensation or motor system on the

[15]contralateral side. In that distribution you can have

[16]enough pressure on it, you can have problems with legs

[17]or arm. You can see changes with your face, based on

[18]the fact that that could be pressing on the areas that

[19]are responsible for those functions.

[20]Q Anything else?

[21]A You could have some changes in your

[22]respirations. And that's a little variable, just

[23]because this is sort of accompanied with increases

in

[24]pressure. So it's kind of hard to tell specifically on

[25]the film exactly how much pressure is being exerted

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[1]because depends when you examined the patient. If you

[2]examined him at this time here, I have seen a patient

[3]with hemorrhages comparable to this, awake and talking,

[4]and minimal changes **[*58] [**58]** in levels of consciousness. I have

[5]seen patients with hemorrhage like this that are

[6]obtunded, not awake. Depends on the age of the patient

[7]and exactly what happened.

[8]Q Okay. So with respect to the level of

[9]consciousness, you can't by simply looking at the film

[10]tell specifically what clinical symptoms this person

[11]probably would have?

[12]A I could tell you what clinical symptoms I could

[13]expect based on the frontal lobe. But based on total

[14]global pressure, without seeing the patient -- because

[15]this could be at a stage where he was just starting to

[16]develop hydrocephalus and increased swelling, so then

[17]his level of conscious could be going down. Or when I

[18]examined him, it might have been just before that

[19]happened. Hard to say from a global standpoint.

[20]Q Can you tell from looking at these radiology

[21]films how long the intracranial hemorrhage had been

[22]present, just from looking at the films?

[23]MS. KOROLL: Just state the times for the films to

[24]clarify.

[25]MR. SNYDER: Sure.

[61]

[1]MS. KOROLL: The three films, 100, 101, and 102 are

[2]timed at 8:53, 8:52, they all look like 8:53 **[*59] [**59]** a.m.

[3]study. Other things 1:04, 1:05 --

[4]THE WITNESS: 1:03.

[5]MS. KOROLL: And the 1:03 all have a time on them,

[6]of 7:56 p.m.

[7]MR. SNYDER: I will go back and just ask the

[8]question so --

[9]MS. KOROLL: Off the record.

[10](CT's were displayed.)

[11]MR. SNYDER: We have now put up both sets of CT

[12]films. One of them are from 8:56 a.m.

[13]MS. KOROLL: 8:53.

[14]MR. SNYDER: 1:20, and the other one from

[15]approximately 7:56 p.m. and also June 20, 2001. Agreed?

[16]THE WITNESS: Yes.

[17]Q BY MR. SNYDER: Okay. Here is my question to

[18]you. Do you have -- I have got several questions about

[19]the films. One of them is do you have the education,

[20]training, and experience to look at these films and say

[21]how long this intracranial hemorrhage has been present?

[22]MS. KOROLL: Just by looking at these films?

[23]THE WITNESS: No, I can't say.

[24]Q BY MR. SNYDER: That's not something you can

[25]do, looking at the film and say "this one has been here

62

[1]blank hours," specifically to this particular case?

[2]A You can tell if it's been there for weeks. But

[3]in regard to days or **[*60] [**60]** hours, you can't.

[4]Q Now, with a person who has a bleed of the size

[5]and location that this -- that is reflected on these

[6]morning films from June 20, 2001, you would expect him

[7]to have immediate symptoms at the time of his bleed. Is

[8]that accurate?

[9]MS. KOROLL: I am going to object as to form. I

[10]don't know if that's what you mean to ask, Greg.

[11]MR. SNYDER: Let me ask a different question, make

[12]sure I am being fair here.

[13]Q BY MR. SNYDER: You would expect a person who

[14]has these films from the morning of June 20, 2001 to

[15]have clinically evident symptoms of intracranial

[16]hemorrhage, correct? Or --

[17]A Yes and no. I will explain. The reason is

[18]being because in that area, that would probably give

[19]someone a headache that, unless you asked them about it

[20]they might not tell you. Given in that area, that would

[21]be the part of the brain that caused you to have all

[22]those different changes in your personality, things like

[23]that. If you are lying in bed, nobody asked you about

[24]things, you might not be cursing, et cetera, but just

[25]lying there watching TV. If someone doesn't ask the

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[1] **[*61] [**61]** right questions, might not always find that.

[2]Now, with a hemorrhage like that, any damage to

[3]the frontal lobe, you can have inappropriate behavior

[4]like doing things -- walk outside of their room naked,

[5]because damage to their frontal lobe after surgery, just

[6]depends what is being done -- and there is a number of

[7]variable problems you can have from having damage to

[8]that frontal lobe.

[9]Q So a person with a bleed this size may or may

[10]not have perceptible symptoms; is that accurate?

[11]A Not trying to be funny. But I guess anything

[12]is possible.

[13]Q Okay. I'll ask you some questions about some

[14]different concepts now. What are the signs and symptoms

[15]then of a bleed in the area where this patient had his

[16]bleed? Are they potential alterations in consciousness,

[17]potential alterations in personality, and incontinence?

[18]A That's not all-inclusive, but yes, those are

[19]some symptoms you can find.

[20]You can also have seizure activity because of

[21]where this is, and that can be manifested as something

[22]global, like a seizure or like the normal seizure you

[23]and I would think of, diatonic **[*62] [**62]** seizure or

any type of

[24]seizure you can have based on irritation of the brain

[25]from that, based on any kind of pressure that hemorrhage

64

[1]might cause. You can have neurologic deficits in other

[2]areas of the brain because of the compression from the

[3]hemorrhage in that area.

[4]Q All right. Do you have an opinion as to

[5]precise cause of the intracranial hemorrhage in this

[6]particular patient?

[7]A Are you asking my opinion based on my

[8]experience? Or asking my opinion just based on the

[9]charts that I have reviewed and records I have

[10]reviewed?

[11]Q Tell you what. I'll ask you that question

[12]again. We will go through your opinions.

[13]A Sure.

[14]Q Let's go through your opinions. Want a copy of

[15]your exhibit there?

[16]A Sure.

[17]Q Let's go to page -- second page of it.

[18]Starting here with B, Roman numeral II. Okay. I am

[19]going to ask you to show me particular places in the

[20]records that you have reviewed that support certain of

[21]the statements that are set out here.

[22]A Okay.

[23]Q I am actually working off deposition

[24]Exhibit 3.

[25]A Okay.

65

[1]Q Start at **[*63] [**63]** the end. The last paragraph says:

[2]"If health care personnel at OSF Hospital had

[3]responded to Mr. Johnson's obvious signs of

[4]neurological distress on June 18, 2001 or at least

[5]by June 19, 2001, with appropriate neurological

[6]assessment and CT scan, all anticoagulant therapy

[7]would have been discontinued."

[8]Agreed?

[9]A Yes.

[10]Q What I wanted to ask you is, when is it that

[11]the first time was when there were obvious signs of

[12]neurological distress of this patient, based on the

[13]materials you reviewed?

[14]A Do you need me to show you, or --

[15]Q Or if you know, off the top of your head?

[16]A I know where that is. You said the medical

[17]chart or anything?

[18]Q So the first time is in this Deposition Exhibit

[19]No. 6 or --

[20]A Yes.

[21]Q Okay. Now, I don't think I have ever gotten a

[22]chance to see or look at this before today. I will do

[23]my best. Let's set this aside, Deposition Exhibit No.

[24]6.

[25]How about in the medical record. When is the

66

[1]first obvious sign of neurological distress in this

[2]patient, in your opinion?

[3]MS. KOROLL: Can I help him with **[*64] [**64]** dates, or not? He

[4]tells me the date, can I then help him find the record?

[5]Because we went through and tabbed things when I talked

[6]to him today.

[7]MR. SNYDER: Do you want to use your record?

[8]MS. KOROLL: Probably easier.

[9]THE WITNESS: This is dated 6/18/'01. And it is a

[10]flow sheet and patient progress note, nursing notes.

[11]And at 2000 hours, it states:

[12]"The wife is concerned about patient being

[13]confused, and patient was answering questions, said

[14]the patient was answering questioning appropriately

[15]but wife was concerned about patient being

[16]confused."

[17]MR. SNYDER: What time was that?

[18]THE WITNESS: 8:00 p.m.

[19]Q BY MR. SNYDER: So at 8:00 p.m. is the first

[20]report in the medical record of some neurological

[21]alterations in this patient that --

[22]A Well, actually, up a little further, at 1400

[23]there is an entry that says:

[24]"The patient had some emesis. Said the patient

[25]denied any chest pain, shortness of breath, but

[67]

[1]he did actually vomit."

[2]So that was at 1400.

[3]Q An episode of emesis would not be

[4]pathopneumonic for intracranial hemorrhage? **[*65] [**65]**

[5]A Not necessarily, because if he had eaten or

[6]something -- and I don't have any other records.

[7]Q Kind of non-specific finding, wouldn't you

[8]agree?

[9]A Depends on what's going on, but yes.

[10]Q In this gentleman's context, the fact that he

[11]threw up at 12:00 o'clock in the afternoon --

[12]A Which wouldn't be normal, but --

[13]Q Do you know whether or not there is any

[14]frequency of vomiting associated with myocardial

[15]infarction?

[16]A No, I don't.

[17]Q Do you know if myocardial infarction is

[18]associated with ethyl alcohol withdrawal?

[19]A I don't know the exact numbers. I have never

[20]seen it, but I don't know the exact numbers.

[21]Q You wouldn't consider it unusual for someone

[22]who has reports a history of drinking six beers a day to

[23]vomit once in the hospital, do you think that would be

[24]unusual?

[25]MS. KOROLL: Objection, form, incomplete
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[1]hypothetical, mistakes facts in evidence. Question is

[2]would you think it's unusual.

[3]THE WITNESS: I wouldn't -- I don't have any

[4]knowledge base to talk about that. I can say just from

[5]my experience that I have **[*66] [**66]** seen people in withdrawal.

[6]That's not one of the things they do, but doesn't mean

[7]that happens in every single case.

[8]Q Do you think in Mr. Denton Johnson's case that

[9]vomiting in his particular case is an indication of some

[10]kind of dawning intracranial hemorrhage?

[11]A When patients have increased or elevated

[12]intracranial pressure, they become nauseated and vomit

[13]something part of that.

[14]Q My question is specific to him, though. Do you

[15]believe that vomiting in Mr. Johnson's case is evidence

[16]of a dawning intracranial hemorrhage?

[17]A Dawning meaning that he had it and was

[18]vomiting.

[19]There is not enough information in the medical

[20]record for me to make an accurate assessment.

[21]Q Okay. The first reported sign of neurological

[22]deterioration in the medical record for this patient is

[23]at or about 8:00 o'clock at night, June 18, 2001; is

[24]that fair to say?

[25]A Yes, but not, you know, if you don't think

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[1]about the emesis at 1400.

[2]Q Okay. At that time the wife reports that the

[3]patient was --

[4]A Confused.

[5]Q Confused, okay.

[6]A Then two hours **[*67] [**67]** later states that he actually --

[7]record states he was incontinent of urine at 2200.

[8]Q It goes over to midnight June 19.

[9]A Okay, yes.

[10]Q Okay. Then --

[11]MS. KOROLL: You want him to fill --

[12]THE WITNESS: Well, the next entry here in the

[13]records is a GCS score, Glasgow coma score, shows the

[14]patient -- best I can read this here -- this is looking

[15]at the verbal response. There is noted that he is -- my

[16]guess would be intermittently oriented and confused,

[17]Glasgow 14 out of 15.

[18]Q BY MR. SNYDER: Okay. Now, what's the next

[19]report of neurological deterioration in the medical

[20]record, according to your review?

[21]A Well, on that same day, which would be starting

[22]at midnight, and going through nursing records on all

[23]three of the shifts, it shows that there is behavior,

[24]inappropriate, and it was on all three shifts. On the

[25]midnight shift, or I guess it's 11:00 o'clock on the

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[1]18th to 7:30 in the morning on the 19th, showed he had a

[2]weak, unsteady gait and that he required two assist.

[3]Q What time?

[4]A 2300 to 7:30.

[5]Q Okay.

[6]A Talked about he **[*68] [**68]** needed assistance then, and all

[7]through the rest of that day there was some assistance

[8]that he needed.

[9]Q 2300 to 3:07 what day?

[10]A 19th. So it was 2300 on the 18th to 3:07 on

[11]the 19th.

[12]Q Somewhere within that eight-hour window?

[13]A Right. Doesn't say specifically. Also, it

[14]showed that during that day, just looking across the

[15]medical record, that he had continued to have occasional

[16]nausea and vomiting. And then it showed in that first

[17]shift, 2200 to 3:07 he was incontinent and remained --

[18]continued, remained incontinent throughout the day and

[19]also states that he had again inappropriate behavior.

[20]It doesn't say specifically what the behavior was, just

[21]"inappropriate behavior."

[22]Q If you turn the page, what do you see?

[23]A It states that there is documented that 0300

[24]that there was some problems with appears to be

[25]confusion; made comments about the television coming out

[71]

[1]of his heart monitor. And is said he was awake to

[2]person, place, and time, but that he still had some

[3]confused comments about the television.

[4]Q Okay. So when we talk about obvious signs of

[5] **[*69] [**69]** neurological distress June 18, 2001 and June 19, 2001,

[6]said in the medical records, are those the neurological

[7]alterations that we just discussed?

[8]A Yeah, and there is also one with the wife just

[9]saying that he was confused by some of the things that

[10]he said, also about 6:30 in the morning, but yes, these

[11]are some of the things in the medical records that

[12]showed there is some neurological issues that should be

[13]addressed.

[14]Q This sentence says certain obvious signs of

[15]neurological distress. Have you pointed out in the

[16]whole records -- here they are -- the obvious signs of

[17]neurological -- signs of distress, June 18 and 19, would

[18]be --

[19]A Aforementioned ones which said he was confused.

[20]He also was incontinent of urine. He was also having

[21]multiple bouts of nausea and vomiting. Those are

[22]obvious signs of intracranial process going on.

[23]Q As we continue on with this paragraph, it says

[24]"If health care personnel had responded to Mr.

[25]Johnson's obvious signs of neurological distress on

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[1]June 18, 2001, or at least by June 19, 2001, with

[2]appropriate neurological assessment and **[*70] [**70]** CT scan, all

[3]anticoagulant therapy would have been discontinued."

[4]In other words, in your opinion the response to

[5]the obvious signs of neurological distress that you just

[6]set out for me here should have been to get a CT of his

[7]head and DC the heparin?

[8]A Yes. Appropriate thing would have been to have

[9]him be evaluated.

[10]Q Okay. A number of different places in the

[11]opinion refers to the idea that a full neurological

[12]evaluation was what was required.

[13]A Yes.

[14]Q When you referred to there to the opinion, what

[15]are you referring to? Calling in a neurology consult,

[16]or something else?

[17]A I think that things work differently in

[18]different hospitals, so I don't know the level of how

[19]things are done. But a full neurological assessment

[20]should have been made by the nurse, and she should have

[21]notified someone as to what was going on.

[22]After that notification, which would be a

[23]physician, then the determination should be made from

[24]that point if further neurosurgical or neurological

[25]evaluation was necessary and appropriate steps taken.

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[1]That could have been after taking **[*71] [**71]** some kind of imaging

[2]studies to determine what was going on with his head

[3]after or before.

[4]Q In that context then to notify physicians of

[5]obvious signs of neurological distress and the need for

[6]neurological assessment and CT scan in order to decide

[7]what they should do, correct?

[8]A In a perfect world, yes.

[9]Q The physicians then would come in and either

[10]perform the examination themselves or call in the

[11]appropriate medical specialties to take it from there,

[12]correct?

[13]A Correct.

[14]Q Continuing on, it says,

[15]"Intracranial bleed would not have been made

[16]worse by continued heparin and therapeutic

[17]Lovenox."

[18]First, with respect to the intracranial bleed

[19]would not have been made worse, is it your opinion then

[20]that these signs of neurological distress you saw there

[21]referred to on June 18, 2001 and June 19, 2001 were the

[22]product of an intracranial bleed that had already

[23]occurred?

[24]A Am I just reading this incorrectly, or is there

[25]a typo there? Intracranial bleed would not have been

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[1]made worse by continued heparin and therapeutic Lovenox,

[2]it should **[*72] [**72]** say.

[3]Q If the therapy had been discontinued then it

[4]wouldn't have been made worse.

[5]A Correct.

[6]Q Says,

[7]"With appropriate neurological assessment and

[8]CT scan, all anticoagulant therapy would have been

[9]discontinued. The intracranial bleed would not have

[10]been made worse by continued heparin and therapeutic

[11]Lovenox."

[12]A If that were stopped, it would have been made

[13]worse.

[14]Q That's my point. You agreed he already had an

[15]intracranial bleed at the time he showed these signs of

[16]neurologic distress on June 18 and 19, 2001?

[17]A There is no way to know 100 percent, because

[18]his scan wasn't until that day, because he was

[19]exhibiting signs of that.

[20]Q Do you have an opinion to a reasonable degree

[21]of medical certainty as to whether or not he already had

[22]an intracranial bleed at the time of 3:15 in the morning

[23]of June 19, 2001?

[24]A Within a reasonable degree of medical

[25]certainty, I would say that yes, he probably had
75

[1]hemorrhaged then.

[2]Q Do you have an opinion to a reasonable degree

[3]of medical certainty what the cause was of the

[4]hemorrhage **[*73] [**73]** that was present at that time?

[5]A Just from reviewing the records, the only

[6]thing, only other -- well, actually the only thing that

[7]I read that could have been the culprit would be his

[8]anticoagulation therapy.

[9]Q What do you mean by that?

[10]A Just based on the records that I have, there

[11]is no history of trauma, it doesn't sound like his blood

[12]pressure was way out of control, didn't seem to be any

[13]other inciting incident that could have caused his

[14]hemorrhage, and it's well documented in the literature

[15]the problems you have from thrombolytic therapies, all

[16]those issues, in relation to causing an intracranial

[17]hemorrhage. So outside of any other cause for this,

[18]that being there, that would be the cause, I would think

[19]of his intracranial hemorrhage.

[20]Q Okay. Now, with respect to his anti

[21]coagulation therapy, are you referring to the

[22]combination of the TnKase, the heparin, the Plavix and

[23]the aspirin as being the cause of his intracranial

[24]hemorrhage?

[25]A Well, the problem is that that's a lot of
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[1]anticoagulation therapy.

[2]Q Okay.

[3]A And going through all of **[*74] [**74]** them specifically,

[4]being given the thrombolytic, that TnKase can cause a

[5]hemorrhage. I don't know the exact numbers, but like I

[6]said, just from my experience in dealing with a lot of

[7]patients with thrombolytic therapy and heparin for other

[8]reasons, there is increase in intracranial hemorrhages

[9]with supratherapeutic heparin therapy, meaning APTT, I

[10]don't know the exact numbers but there is an

increased

[11]risk of hemorrhage in light of that aspirin and Plavix

[12]actual decrease that first line, which is the platelet

[13]function, so that increases -- thins out your blood a

[14]little more, decreases the chance of clotting little

[15]more first, because actually starts the clotting

[16]cascade.

[17]On top of that, if you were given the

[18]therapeutic dose of another agent on top of that, if

[19]there was any other chance of your clotting then, then

[20]there is that much less of a chance if you are given

[21]another agent to increase or -- increase -- decrease the

[22]clotting time.

[23]Q Is there any way for you to differentiate

[24]between the TnKase, the heparin, Plavix, and Lovenox as

[25]to which of them caused intracranial bleed in **[*75] [**75]** this

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[1]patient?

[2]A Which one specifically out of the four?

[3]Q Yes.

[4]A I can't say which one did what. It would just

[5]be a supposition.

[6]Q I want to talk about the bleed that he would

[7]have had at the time that his obvious signs of

[8]neurological distress occurred. At that point you would

[9]agree at least according to the record and evidence

[10]received, the TnKase, heparin, Plavix, and aspirin, is

[11]that correct?

[12]MS. KOROLL: What time are you referring to?

[13]MR. SNYDER: Say by 3:00 in the morning on June 19,

[14]2001.

[15]MS. KOROLL: Because you are missing -- I'm sorry,

[16]did you say the Lovenox?

[17]MR. SNYDER: No, I don't think he gets the Lovenox

[18]until the next day.

[19]THE WITNESS: It was given later.

[20]MR. SNYDER: Holding his use of Lovenox and Pham

[21]uses the heparin, I think.

[22]MS. KOROLL: Off record a minute.

[23]Q BY MR. SNYDER: Do you agree that whatever

[24]neurological deterioration Mr. Johnson was showing at

[25]the time when he was saying that the TV was coming out

[78]

[1]of his heart rate monitor, that's evidence of an

[2]intracranial hemorrhage? **[*76] [**76]**

[3]A It could be, yes.

[4]Q Do you know whether it was or wasn't, to a

[5]reasonable degree of medical degree of certainty?

[6]A Within a reasonable degree of medical

[7]certainty, it could be.

[8]Q To the extent that it was, are you able to

[9]differentiate as to whether or not the intracranial

[10]hemorrhage that he had late on the night of the 18th

[11]going over onto June 19th at 3:00 o'clock in the

[12]morning, whether or not that was a result of the

heparin

[13]bolus and TnKase he got at Kishwaukee Hospital, or a

[14]result of the heparin therapy that he received at St.

[15]Anthony Medical Center? Can you differentiate between

[16]those?

[17]A From making only that one statement that's in

[18]the record, if I looked back at all the other statements

[19]he made, I would say he continues to be confused.

[20]Now, whether his hemorrhage was small and it

[21]got a lot bigger at that time, he could still have the

[22]same confusion and start to get a little worse. But

[23]from that one statement, I can't say specifically.

[24]Q I want to focus on the statement, I was trying

[25]to get a point in time, okay. This guy -- in your
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[1] **[*77] [**77]** opinion to a reasonable degree of medical certainty,

[2]this guy was exhibiting neurological symptoms as a

[3]result of intracranial hemorrhage late the evening of

[4]the 18th into the early morning hours of June 19th,

[5]2001?

[6]A Yes.

[7]Q Now I want to talk to you about the cause of

[8]that intracranial hemorrhage. You are aware that this

[9]gentleman received 45 milligrams of TnKase and 5000 unit

[10]bolus heparin and placed on a 1000 unit heparin protocol

[11]at Kishwaukee Hospital, correct?

[12]A Yes.

[13]Q Then he was admitted to St. Anthony Medical

[14]Center and was placed on a heparin protocol during June

[15]17, into June 18, 2001; are you aware of that as well?

[16]A Yes.

[17]Q Do you have the education, training, and

[18]expertise as a neurological surgeon to differentiate as

[19]to whether or not the bleed that he had late on June 18

[20]going into June 19 was a result of the TnKase and

[21]heparin that he got at Kishwaukee Hospital, or as a

[22]result of the heparin that he received at St. Anthony

[23]Medical Center? Can you differentiate between those?

[24]A All I can differentiate between is when his

[25]symptoms **[*78] [**78]** started, based on the information I have. So I
80

[1]don't know if there was any present at that time, but

[2]just based on these records it sounds like it was caused

[3]by heparin when he started to exhibit his symptoms.

[4]That's the only thing I have to go on.

[5]Q So you think to a reasonable degree of medical

[6]certainty that the bleed that he had on June 18 was

[7]caused by heparin he was receiving then June 18?

[8]A Yes.

[9]Q And how far in advance of that -- okay, so as

[10]far as the heparin and the TnKase he received at

[11]Kishwaukee Hospital and the heparin he received at St.

[12]Anthony Hospital June 17, to a reasonable degree

of

[13]medical certainty you don't believe those caused or

[14]contributed to his bleed?

[15]MS. KOROLL: Object to form.

[16]THE WITNESS: The only thing that I can say within a

[17]reasonable degree of medical certainty is that he was on

[18]the heparin while -- when he had the symptoms.

[19]I can't say when he didn't have symptoms, what

[20]was going on, because I don't know. I can only say when

[21]he started to develop symptoms was, as I remember, on

[22]the 18th, and given the heparin he was getting **[*79] [**79]** at that

[23]point in time the only thing that I can say is that when

[24]he was getting that heparin, he started developing these

[25]symptoms. And as best I can say, that's when he

[81]

[1]developed the hemorrhage.

[2]Q BY MR. SNYDER: Okay. So you think the

[3]hemorrhage occurred then sometime shortly before the

[4]wife's reports of inappropriate behavior late on the

[5]night of June 19, 2001?

[6]A Like I say, sometimes there can be a delay in

[7]it. There was no films, but based on his symptoms I can

[8]say at that point in time I would say he did have a

[9]hemorrhage because of the changes in his mental status.

[10]Q As far as when it began, you are unable to say?

[11]A Correct.

[12]Q That's what I was trying to get at. I don't

[13]want to put words in your mouth.

[14]He received thrombolytic therapy and heparin at

[15]Kishwaukee Hospital. Then he received heparin at St.

[16]Anthony Medical Center. I presumed you didn't have the

[17]ability to form an opinion whether this gentleman's

[18]bleed is the result of the medication that St. Anthony

[19]gave him, not that Kishwaukee gave him?

[20]A Well, basically he had a negative head **[*80] [**80]** CT

[21]before he started his treatment. The only thing I can

[22]say based on the records is that he had symptoms when he

[23]was at St. Anthony's, and that was after he had been

[24]given treatment there.

[25]I can't speak on any symptoms he had before

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[1]that, because I don't have any information about that

[2]except what was in the records from the emergency room,

[3]things like that. And I didn't hear any reports of him

[4]having changes before that. This was the only reports I

[5]have of him having changes. So I would have to say that

[6]was when he had his hemorrhage.

[7]Q He would have an indolent bleed exhibiting

[8]symptoms for several hours.

[9]MS. KOROLL: Objection, that would call for

[10]speculation.

[11]THE WITNESS: I would be speculating.

[12]MR. SNYDER: People can have bleeds that occur and

[13]then there is a delay before there is any symptoms that

[14]are clinical evident.

[15]MS. KOROLL: Asked and answered.

[16]MR. SNYDER: Is that accurate?

[17]THE WITNESS: Sure. But it's just speculation as to

[18]when it happened.

[19]I can only say for sure that I know when he

[20]started developing symptoms, that **[*81] [**81]** at that point in time

[21]in my opinion that that's when he had the hemorrhage.

[22]Q BY MR. SNYDER: Know that he had a hemorrhage

[23]at that time, or are you saying you know to a reasonable

[24]degree of medical certainty that's when the hemorrhage

[25]occurred? In other words, he didn't have one before

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[1]that?

[2]MS. KOROLL: Argumentative.

[3]THE WITNESS: Like I said earlier, that there is no

[4]way 100 percent I can say exactly the minute when it

[5]happened. All I can say based on his neurologic

[6]assessment, and you know, if I were neurologically

[7]assessing him every minute of the day, it might be more

[8]accurate.

[9]But based on the records I see, this is when he

[10]started having neurologic changes. That's only thing

[11]that can go on in regard to when he had the hemorrhage.

[12]MS. KOROLL: Can we have a five minute break.

[13]MR. SNYDER: Just let me finish this.

[14]Q BY MR. SNYDER: So in your opinion the

[15]intracranial bleed in this patient occurred how many

[16]hours then before his wife first reported confusion on

[17]June 18, 2001?

[18]A I can't answer that question.

[19]Q I didn't think you could. **[*82] [**82]** I'm not trying to

[20]argue with you. I am really not.

[21]Is it accurate that it's your testimony that he

[22]had a hemorrhage on June 18, 2001 at the time his wife

[23]reported confusion at around 8:00 p.m. but you are not

[24]able to say to a reasonable degree of medical certainty

[25]when that bleed began?

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[1]MS. KOROLL: You just misstated as to when the wife

[2]reported confusion. You said 8:00 p.m. and he told you

[3]he had evidence of the wife talking about confusion

[4]earlier. You are talking about when she reported to the

[5]nurse?

[6]MR. SNYDER: Yeah, she reported to the nurse June

[7]18, 2001. That's when you believe -- your opinion to a

[8]reasonable degree of medical certainty that when she

[9]reported to the nurse at around 8 a.m. June 18, 2001,

[10]that he had a hemorrhage at that time.

[11]MS. KOROLL: There was one --

[12]MR. SNYDER: At that time.

[13]THE WITNESS: That's what I just said, that I

[14]thought that was what was causing his neurologic

[15]changes, I thought.

[16]Q BY MR. SNYDER: As to when that bleed began,

[17]you do not have an opinion to a reasonable degree of

[18]medical certainty?

[19] **[*83] [**83]** A The only opinion I can give is based on his

[20]medical report based on when he had neurologic problem.

[21]So in my opinion, it would mean that when he had those

[22]neurologic problems is because there is a hemorrhage

[23]there.

[24]Now, if it happened right at that exact moment

[25]when he opened his mouth, I can't say.

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[1]Q Can you rule out the concept that the bleed

[2]occurred on June 17, 2001 to a reasonable degree of

[3]medical certainty?

[4]A I can't, but there is nothing in here to

[5]support that, that I see.

[6]Q You don't see anything in the medical records

[7]you reviewed that would support the concept that the

[8]medical care that this patient received on June 17, 2001

[9]caused his intracranial hemorrhage. Is that accurate?

[10]A Refresh my memory. He was at the other

[11]hospital on the 17th.

[12]Q He came to our hospital on the 17th from the

[13]other hospital.

[14]A There is a few notes I reviewed from there. I

[15]didn't see anything from there that would make me think

[16]he had a hemorrhage there.

[17]Q Okay. So you didn't see anything in the

[18]record that would indicate that the medications he

[19] **[*84] [**84]** received at St. Anthony on June 17, 2001, caused his

[20]hemorrhage on June 18, 2001; is that correct?

[21]A No. What I mean is that at the time when he

[22]was at the outside facility, that there was nothing in

[23]the record that would lead me to believe that he had

[24]hemorrhage while he was there.

[25]Now, what he was given at the outside facility

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[1]could have played a role in him hemorrhaging, combined

[2]with what he was receiving at the facility where he

[3]ended up. So in that respect, it could have played a

[4]role. That would just be supposition.

[5]But we know that the mixture of medications can

[6]cause a hemorrhage, and the problem is that, like I

[7]said, this is the only time when I have information

[8]saying that he had some neurologic deficit. So that

[9]would be my assumption, that that was when it happened,

[10]or somewhere close to that time when he was found to

[11]have neurologic changes.

[12]Q So June 18, 2001 at 8:00 p.m. or somewhere

[13]close to that time is the time when you believe he began

[14]to have an intracranial hemorrhage.

[15]MS. KOROLL: Objection, mischaracterizes, misstates

[16]previous testimony. **[*85] [**85]**

[17]THE WITNESS: I think at that point in time you said

[18]earlier that he had intracranial hemorrhage present in

[19]his head I cannot say. I don't think we can say the

[20]exact minute and time it happened.

[21]Q Can you say what day it happened?

[22]A I can only give opinion based on what the

[23]medical record says, and that's the first time that I

[24]see anything that states he had any kind of neurologic

[25]changes in his behavior.

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[1]Q June 18, 2001, as far as days are concerned,

[2]was the day that his intracranial hemorrhage began.

[3]MR. KOROLL: Objection, mischaracterizes testimony,

[4]argumentative.

[5]THE WITNESS: That was when he said that he actually

[6]had those neurologic changes or that's when it was

[7]reported. Other than that, I can't really assume or

[8]speculate as to if there were neurologic changes present

[9]at any other time, only those in the record, so that

[10]would mean to me that was when there was some

[11]intracranial process going on.

[12]Q BY MR. SNYDER: Whether there was an

[13]intracranial process going on June 17 would be

[14]speculation on your part because there is no records to

[15] **[*86] [**86]** support it?

[16]A Well, and I keep saying the same thing, that

[17]this is the only time that I see there was some

[18]neurologic changes, and the only time, not only in the

[19]records but by his wife's report this was the first time

[20]she noticed the change in him.

[21]It would be speculation to say that he might

[22]have had neurologic changes some other time. Nothing

[23]had been documented, and even his wife said that was the

[24]first time she noticed. I don't know if she was with

[25]him every moment of the time she was there. I can't

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[1]speak intelligently in regard to that. This was the

[2]first time there was a neurologic assessment that showed

[3]there was something different in his neurologic

[4]development than before.

[5]Q Suprapubic clotting levels. What does that

[6]mean when you use that term?

[7]A Basically I spoke on my experience in the past

[8]with thrombolytic therapy and heparin, and I said there

[9]is an activated clotting time which is different than

[10]the APTT, basically means the same thing, shows how

[11]quickly blood is clotting.

[12]There is an increase in having hemorrhage, not

[13]just in patients having **[*87] [**87]** thrombolytic therapy, but

[14]period, I know just from my training and my experience,

[15]that's true. And it's also in the literature. And I

[16]can't quote an exact article or information, but that's

[17]just a known fact.

[18]Q What are you referring to when you use the term

[19]supratherapeutic?

[20]A Anything out of the therapeutic range.

[21]Different hospitals use different numbers regarding

[22]different therapeutic ranges.

[23]Q And the ranges depend on what you are using it

[24]for. Is that correct?

[25]A Yes.

[89]

[1]MR. SNYDER: Take your break.

[2](Brief recess.)

[3]Q BY MR. SNYDER: Is there anything in the

[4]records and materials that you reviewed that would allow

[5]you to differentiate between an intracranial hemorrhage

[6]in this patient that's caused by high blood pressure

[7]versus anticoagulation therapy?

[8]A Just from what I read in the records and as I

[9]knew too regularly with hypertensive hemorrhages, I

[10]didn't see anything in the records that was documented

[11]that showed he had much of an elevation in his blood

[12]pressure.

[13]Q Well, is there anything in the records that you

[14]can point **[*88] [**88]** to that would allow you to differentiate

[15]between an intracranial hemorrhage that occurs as a

[16]result of head trauma and one that occurs as a result of

[17]anticoagulation therapy?

[18]A There is nothing in the record that, as I

[19]alluded to earlier, that referred to any kind of head

[20]trauma or issues concerning that.

[21]Q Let's get through this opinion then and see

[22]what we can do. Let's go right down from the beginning

[23]here.

[24]Okay, second paragraph in Dr. Hunt's opinion,

[25]Denton Johnson was deprived of an opportunity to be

90

[1]cured of his condition through the failure of the

[2]physicians and staff at OSF to act within the standard

[3]of care and promptly recognize the alterations in

[4]behavior, personality, and sensorium. Where -- what are

[5]the alterations in sensorium you are referring to in

[6]that sentence?

[7]A Alteration in sensorium would be his confusion.

[8]Q When is the first time you were aware of any

[9]documentation of confusion in this patient June 18,

[10]2001, at 8:00 o'clock p.m?

[11]A I think that there was something in his wife's

[12]statement --

[13]MS. KOROLL: The question was **[*89] [**89]** in the medical

[14]record.

[15]MR. SNYDER: My question is limited to the medical

[16]record. Which is an asked and answered question.

[17]THE WITNESS: I think that the one I said earlier

[18]about 08:00.

[19]MS. KOROLL: 2000, 8:00 p.m.

[20]THE WITNESS: I couldn't remember the exact time.

[21]Q BY MR. SNYDER: You mentioned earlier 8:00 p.m.

[22]June 18, 2001 correct?

[23]A Correct.

[24]Q That's also the first time that there is any

[25]documentation in the medical record as far as

[91]

[1]alterations in behavior or personality, correct?

[2]A Yes, as best I can remember.

[3]Q And next, going right on,

[4]"Mr. Johnson exhibited incontinence, confusion,

[5]and inappropriate behavior beginning at least by the

[6]early morning of June 18, 2001."

[7]What are you referring to there?

[8]A As best I can remember, the detailed

[9]information given by the wife.

[10]Q That's this Exhibit 6?

[11]A Yes.

[12]MS. KOROLL: As well as the deposition.

[13]MR. SNYDER: And his deposition too, her.

[14]THE WITNESS: I don't have her deposition but that's

[15]part of where I got information regarding his sensorium. **[*90] [**90]**

[16]Q BY MR. SNYDER: Then this is a sentence that

[17]says,

[18]"A CT was not obtained until June 18, 2001."

[19]What is that based on?

[20]A That might be the wrong one. It was June 20,

[21]2001.

[22]Q Just a mistake with respect to the date?

[23]A Correct.

[24]Q Then it says,

[25]"The CT revealed a right frontal

[92]

[1]intraparenchymal hematoma with right to left midline

[2]shift and a small subarachnoid hemorrhage overlying

[3]the vertex."

[4]Correct?

[5]A Yes.

[6]Q You believe those films reveal this pathology?

[7]A Yes.

[8]Q Then it says,

[9]"Within a reasonable degree of neurosurgical

[10]certainty, it is Dr. Hunt's opinion that Denton

[11]Johnson intracranial bleed was caused by a

[12]combination of the TnKase and heparin therapy,

[13]Plavix, and aspirin."

[14]Is that your opinion? Do you believe that the

[15]TnKase in combination with TnKase and heparin therapy

[16]caused or contributed to cause plaintiff Denton

[17]Johnson's intracranial bleed? Or is that not the case?

[18]MS. KOROLL: Objection as to form, but he

[19]understands your question.

[20]THE WITNESS: I think that **[*91] [**91]** even a little further

[21]down it explains a little more in regard to my opinion.

[22]But yes, I think that all those probably played a role.

[23]And also, within a reasonable degree of medical

[24]certainty, the heparin that was given exacerbated the

[25]problems and probably increased the amount of bleed that

93

[1]was there.

[2]Taken in association with the aspirin, Plavix,

[3]those are all things alluded to earlier that contributed

[4]to the increase in clotting factors.

[5]Q I want to make sure I understand this one

[6]because I get confused. It's your opinion that the

[7]TnKase he received at Kishwaukee Hospital June 17, 2001

[8]contributed to the bleed that he had at St. Anthony

[9]Medical Center, correct?

[10]A I think that the TnKase played a role, just

[11]because a combination of those medications and more

[12]specifically, the heparin or actually not the heparin

[13]but the coagulation studies show the APTT level greater

[14]than 150 leads you to have increased susceptibility to

[15]bleed and bleed more.

[16]Q You mean contributed to the cause of bleed in

[17]the patient?

[18]A Correct.

[19]Q Is the TnKase reflected in the **[*92] [**92]** APTT value?

[20]A Back to the last question. I think there is a

[21]misunderstanding exactly what I was saying. I said

[22]that the TnKase I don't think caused the hemorrhage and

[23]there is no way that I could -- the only way I can say

[24]that is because of his neurologic status.

[25]That's been important in the medical records

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[1]but it's been well documented in the literature, and

[2]it's well known that the combination of a thrombolytic

[3]agent and another anticoagulant, especially given in

[4]doses that are supratherapeutic, greater than 150, would

[5]give greater propensity to hemorrhage.

[6]Even though there might have been a propensity

[7]for heparin and elevated APTT, that in combination with

[8]TnKase gives you more susceptibility to bleed. So the

[9]fact that Mr. Denton actually had the TnKase put him at

[10]increased susceptibility to hemorrhage once he has

[11]heparin and APTT based on the combination of the two.

[12]Q So the TnKase in combination with the heparin

[13]contributed or caused the bleed in this gentleman.

[14]MS. KOROLL: In combination with the heparin caused

[15]the APTT to be greater than 150.

[16]Q **[*93] [**93]** BY MR. SNYDER: There is where I really start

[17]to get confused. I could have sworn we spent an hour

[18]saying you didn't know he had a bleed June 17?

[19]A I didn't say that. I said the only thing I

[20]could say based on the medical records is that's when he

[21]had obvious neurologic changes. I can't really say he

[22]had neurologic changes before that because there is

[23]nothing in the medical records that states that.

[24]When he actually had neurologic changes, that I

[25]think is that he actually had a hemorrhage present in

95

[1]his brain based on present status. He had confusion,

[2]urinary incontinence, and those were symptoms he hadn't

[3]had before.

[4]Q So what then, the TnKase then -- how long was

[5]that -- let's start with whether or not it's reflected

[6]in an APTT value is. TnKase, is that reflected or shown

[7]in an APTT value?

[8]A I don't know specifically.

[9]Q Greater than the 150 number? You don't know

[10]whether or not that reflects the activity of the TnKase.

[11]He was given that at Kishwaukee Hospital, or

[12]not?

[13]A I don't know the half life TnKase.

[14]Q Did the greater than 150 APTT value **[*94] [**94]** he had at

[15]St. Anthony Medical Center, does that reflect the matter

[16]of TnKase or not?

[17]A I don't know.

[18]Q You don't know whether or not TnKase -- or how

[19]long it was active after it was administered at

[20]Kishwaukee on June 17, 2001; is that accurate?

[21]A I don't know the exact timing of the dosage.

[22]In light of giving TnKase, there is a specific regimen

[23]how things are supposed to be done. And I can't tell

[24]you exactly every specific protocol. That's probably

[25]well documented.

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[1]I know when you have supratherapeutic level or

[2]APTT is elevated, then you have increased risk for

[3]hemorrhage. Only documented time that happened was, to

[4]my recollection, is at St. Anthony. And I don't know if

[5]there is any documented APTT. That, I don't have any

[6]recollection of. That, I just know that at that time he

[7]was given heparin at St. Anthony, that there was a

[8]elevated APTT.

[9]Q Do you know how long the TnKase was active in

[10]Mr. Denton Johnson? Do you know what the period of time

[11]was?

[12]A Not to my knowledge. That's sort of a

[13]physiological question.

[14]Q How about the heparin bolus **[*95] [**95]** he received at

[15]Kishwaukee Hospital; what was the half life on that?

[16]A I don't know the exact -- I can't remember

[17]exactly. I think he got about a 5000 bolus. I don't

[18]know the half life of that, depending on the physiologic

[19]factors.

[20]Q Do you know whether or not that five thousand

[21]unit bolus he received at Kishwaukee Hospital is

[22]reflected in the greater than 150 value at St. Anthony

[23]Medical Center?

[24]A I can't say that because I don't have any

[25]timing as to when things were. I don't know.

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[1]Q But you don't know when the TnKase was given?

[2]A I don't know when the Tnkase was given. I

[3]can't remember specifically when the heparin was given

[4]there. Or also says when the heparin was given at St.

[5]Anthony, but I don't recall specifically.

[6]Q Do you agree to a reasonable degree of medical

[7]certainty that the greater than one 150 APTT value, that

[8]that was the time that his intracranial hemorrhage

[9]occurred?

[10]A Only thing I can say about that is that when he

[11]had his symptoms and they were documented, especially

[12]when his wife spoke about them, I can say -- I am pretty

[13] **[*96] [**96]** sure within a reason degree of medical certainty that he

[14]did have a hemorrhage in his head at that point in time,

[15]because the symptoms he was displaying were neurologic

[16]changes.

[17]Q But you can't say whether or not it's related

[18]to the time period he had the greater than 150 value.

[19]MS. KOROLL: Asked and answered.

[20]THE WITNESS: I can't remember what the time period

[21]was between the 150 and when he displayed the symptoms.

[22]MR. SNYDER: Was my statement accurate?

[23]THE WITNESS: What was the statement?

[24]Q BY MR. SNYDER: You can't tell me whether or

[25]not the time period he had the greater than 150 value --

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[1]whether or not -- and the two hours that followed that,

[2]whether or not that's the time when he had his

[3]intracranial hemorrhage or not?

[4]A When was the APTT taken?

[5]Q 2:15, June 17, 2001.

[6]A This was at St. Anthony?

[7]No one can say specifically, if that's the time

[8]when it happened. But like I said, all I can go from is

[9]the medical record that at 6:00 o'clock in the morning

[10]that's when he was found to have these changes. When

[11]exactly that happened I **[*97] [**97]** can't say. I can only go by

[12]what I see. But there is felony in the literature when

[13]you have such have a therapeutic level that increases

[14]your risk of hemorrhaging. So when the APTT is greater

[15]than therapeutic ranges, greater than 150, that can mean

[16]it's way greater than 150. I have no idea because there

[17]is no measure about that.

[18]Q Can you say whether or not that 150 value or in

[19]excess of 150 value -- let me put this way. It's your

[20]opinion that when you have a APTT value greater than 150

[21]you run an increased risk of having intracranial

[22]hemorrhage?

[23]A Correct.

[24]Q Do you know whether or not that risk was

[25]realized in Mr. Johnson's case?

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[1]A By who.

[2]Q By him, whether or not it in fact occurred.

[3]MS. KOROLL: This is asked and answered. We have

[4]been through all of this.

[5]THE WITNESS: I am not understanding your question.

[6]MR. SNYDER: I appreciate you telling me that.

[7]Here is the way I understand things. When you get --

[8]all of us are at some underlying base line level of risk

[9]of having an intracranial hemorrhage at some point,

[10]anybody with high blood **[*98] [**98]** pressure. Fair?

[11]MS. KOROLL: That's an overstatement.

[12]THE WITNESS: I would say that's overstatement.

[13]Q BY MR. SNYDER: It's not true in your opinion,

[14]people with hypertension have increased incidence or

[15]increased risk of intracranial hemorrhage? Do you

[16]agree, or not?

[17]MS. KOROLL: Objection, incomplete hypothetical.

[18]THE WITNESS: I can't --

[19]MS. KOROLL: Form, foundation.

[20]MR. SNYDER: Agree or don't, I don't care.

[21]THE WITNESS: I don't know how to answer that

[22]because if someone has hypertension and it's very low

[23]hypertension, then there is a different risk than

[24]someone who has really elevated hypertension. In

[25]hypertension treatment, I can't say all comers, if it's 100

[1]true or not.

[2]Q In the main, you can't say whether or not

[3]people with hypertension have increased risk of

[4]intracranial --

[5]A That's speaking in generalities. Yes, they do

[6]have increased risk, in general people with hypertension

[7]have increased risk of --

[8]Q Intracranial --

[9]A Correct.

[10]Q In general, people who have received

[11]thrombolytic therapy have increased **[*99] [**99]** risk of hemorrhage,

[12]correct?

[13]A Yes.

[14]Q And Mr. Johnson received thrombolytic therapy?

[15]A Correct.

[16]Q Can you tell whether or not that risk was

[17]realized? Can you tell whether or not he had a bleed as

[18]a result of his thrombolytic therapy?

[19]MS. KOROLL: Asked and answered.

[20]THE WITNESS: Thrombolytic meaning TnKase?

[21]MR. SNYDER: Right.

[22]THE WITNESS: We have gone over the same question

[23]probably a million times. Only thing I can say with

[24]reasonable degree of medical certainty is that when he

[25]developed his symptoms, I can't speak before that

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[1]exactly because I have no basis. There is no neurologic

[2]exam that says he had any changes there.

[3]Only thing I can say, when he developed his

[4]neurologic symptoms, that's when he had hemorrhage in

[5]his head. I can't speak on anything before that.

[6]MS. KOROLL: That means hemorrhage in his head was

[7]present?

[8]THE WITNESS: Hemorrhage was present in his head at

[9]that time.

[10]Q BY MR. SNYDER: You can't tell me whether or

[11]not it was the TnKase that caused the intracranial

[12]hemorrhage in this gentleman, **[*100] [**100]** correct?

[13]MS. KOROLL: This is asked and answered. He

[14]answered it a thousand different times.

[15]I don't know what you are trying do here but

[16]he's been -- have you answered that question before?

[17]You don't have to answer it again. Do you believe you

[18]answered it?

[19]THE WITNESS: I have answered it numerous times.

[20]MS. KOROLL: You don't have to.

[21]MR. SNYDER: You refuse to answer it?

[22]MS. KOROLL: Again, yes, he already answered it

[23]numerous times.

[24]MR. SNYDER: He never answered it once, not once.

[25]THE WITNESS: Go ahead. Ask your question.

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[1]Q BY MR. SNYDER: Here's the deal. People get

[2]thrombolytic therapy. They are at risk for intracranial

[3]hemorrhage. Do you know whether or not it was the

[4]thrombolytic therapy this man received, did that cause

[5]hemorrhage? Or you don't know?

[6]A He received his TnKase therapy, okay. I am

[7]taking all this from the medical record, which is all I

[8]have to go by. He is at increased risk, given no matter

[9]who the person is. There is nothing that would lead

[10]anyone to believe that given that before he got to St.

[11]Anthony that **[*101] [**101]** he actually had a hemorrhage caused by

[12]that.

[13]The only thing is once he got to St. Anthony's

[14]he had a neurologic change that was present in the

[15]morning at 6:00 a.m. based on what his wife said in

[16]regard to his confusion. That was the first time.

[17]In the medical record, it's later. But I'm

[18]going from when it was first brought to the attention of

[19]everyone that he was having a problem.

[20]Now everything has a supposition before that,

[21]because there was nothing in the medical record or any

[22]one report that he had any neurologic changes. So we

[23]can go on forever trying to it figure out. Anything is

[24]possible. But that was when he had his neurologic

[25]deficit, that's when he had intracranial hemorrhage

103

[1]going on, and that's when there is a hemorrhage.

[2]Q Can you say whether or not that intracranial

[3]process that you just mentioned was a result of the

[4]heparin he received during the time period he was

[5]greater than 150 or not?

[6]MS. KOROLL: Asked and answered. He already

[7]answered that.

[8]THE WITNESS: We are asking the same question in a

[9]bunch of different ways. I can only say **[*102] [**102]** is what's

[10]written here. And based on what I have read, I have

[11]answered the same question and we have just been asking

[12]different ways. I can only say based on what his

[13]neurologic exam is.

[14]There is no radiographic evidence until the

[15]20th. Obviously this was going on from the time he had

[16]neurologic changes, and that's the only thing I can say

[17]in my professional opinion to any degree of medical

[18]certainty, that's when he had hemorrhage in his head. I

[19]can't speak to what was going on before because there is

[20]no evidence of anything going on before that.

[21]Q BY MR. SNYDER: So whether or not the time

[22]period that he received heparin after his APTT was

[23]greater than 150, whether or not that caused this

[24]gentleman's intracranial hemorrhage, you are unable to

[25]say; is that correct?

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[1]A And I'll go to --

[2]MS. KOROLL: Asked and answered.

[3]THE WITNESS: For the last time, I will go to what I

[4]stated in my opinions a long time ago. We can read

[5]through this paragraph starting with reasonable degree

[6]of neurological certainty or not go through it again.

[7]My opinion is that all those **[*103] [**103]** things played a

[8]role, okay. Anything by itself can cause you to have a

[9]hemorrhage. But in combination, you are at increased

[10]risk, that means in combination with TnKase, Plavix,

[11]heparin, and Lovenox. Even given all those things with

[12]someone that has TnKase and is on heparin, outside of

[13]the other two, when they have an APTT greater than 150

[14]or in the supratherapeutic range greater than 200,

[15]whatever that might be, they are at increased risk for

[16]having hemorrhage. Given the fact he had did have one

[17]greater than 150 and also going further on to say he was

[18]on Plavix and aspirin, chance of bleeding precipitously

[19]on a therapeutic dose of Lovenox, that in and of itself

[20]if he hadn't had a bleed or not, that increased it

[21]exponentially given the anticoagulant.

[22]He was expressing symptoms of an intracranial

[23]process going on, then he actually got another

[24]administration of another anticoagulant too. So that

[25]caused more of a -- probably caused more of a problem

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[1]based on what I see in the records.

[2]MR. SNYDER: Okay.

[3]THE WITNESS: Then also going down through what my

[4]opinions were initially, **[*104] [**104]** that given all those things,

[5]the rate of hemorrhage in patients that have TnKase and

[6]heparin is not as bad, if the APTT is controlled as the

[7]guideline says it should be. If that was managed

[8]properly, then the risk of him bleeding would have been

[9]a lot less.

[10]I can't say that I am 100 percent certain that

[11]he wouldn't have had a bleed. But the problem is that

[12]the literature said there is increased risk of him

[13]bleeding with supratherapeutic -- increased risk of him

[14]bleeding when the APTT is in the supratherapeutic

[15]range.

[16]If he had been better controlled, I don't know

[17]the exact protocol, I don't actually -- I have never

[18]actually seen it. But if that were controlled, then it

[19]might not have been a problem. Not that he wouldn't

[20]have hemorrhaged. I think that that added to whatever

[21]problem was going on, and made it worse.

[22]Q BY MR. SNYDER: So the greater -- the fact

[23]that he had an APTT level of greater than 150, that

[24]probably made a pre-existing hemorrhage worse. Is that

[25]accurate?

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[1]A I can't say that. I said that.

[2]Q What effect, if any, did this patient having a

[3] **[*105] [**105]** APTT level greater than 150, what effect did that have

[4]on him? It increased his risk for intracranial

[5]hemorrhage?

[6]A It increased his risk for intracranial

[7]hemorrhage, given he received TnKase.

[8]Q Whether that risk was realized, in other words,

[9]whether he had a bleed as a result of that increased

[10]risk, you are unable to say bled, or added to the bleed.

[11]Just go with bled.

[12]A In regard to him bleeding, okay. I don't know

[13]the specific minute when he bled. All I know is that

[14]likely keep saying that he had the neurologic changes.

[15]Now, if he had the neurologic changes and his APTT was

[16]greater than 150, could that contribute to him having

[17]more bleeding? Sure.

[18]Q Did it? To a reasonable degree of medical

[19]certainty?

[20]A I would say that with if the APTT being greater

[21]than 150, that I would say that that probably

[22]contributed to him actually bleeding more.

[23]Q So he was bleeding at the time he had an APTT

[24]greater than 150?

[25]A You don't actually bleed continuously.

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[1]Q He was bleeding at the time he had an APTT

[2]greater than 150?

[3]A I don't know **[*106] [**106]** how long he stayed above 150 at

[4]the point labs were drawn. I can't say he had a

[5]hemorrhage about 6:00 o'clock in the morning. He could

[6]have had a hemorrhage at 2:00 in the morning, 4:00

[7]o'clock in the morning. That was the only time his wife

[8]said he had changed. So that is the only time I can

[9]stay within a reasonable degree of medical certainty

[10]that he had something going on in his brain. And now we

[11]see later on it was a hemorrhage at that point in time.

[12]Q Okay. The next sentence says -- I left off

[13]something here. Assuming that -- never mind.

[14]Okay. Next sentence. Proper control of APTT

[15]and an adherence protocol would have avoided

[16]overcoagulation in this patient, and would have

[17]minimized intracranial bleeding. Is that accurate?

[18]A Yes.

[19]Q What do you mean by overcoagulation avoided

[20]coagulation?

[21]A Meaning that his levels or his APTT was in the

[22]supratherapeutic range, so that means your blood is much

[23]too thin, and being in therapeutic range if it's 60 to

[24]80. Then if it's greater than 150 or anywhere outside

[25]that, increases your propensity to bleed, and if you

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[1] **[*107] [**107]** bled, to bleed more.

[2]Q What was it that caused him being in the

[3]supratherapeutic range? What medicine was it?

[4]A Heparin he was on, because Plavix and aspirin

[5]don't change the APTT or the P.T.

[6]Q It was the heparin alone that caused him to be

[7]greater than 150?

[8]A Yes.

[9]Q When you say here "overcoagulation," don't you

[10]mean over-anticoagulation?

[11]A That's -- stated incorrectly. It's

[12]Overanticoagulation.

[13]Q So when you are referring to over

[14]anticoagulation, you are talking about that value when

[15]it was greater than 150?

[16]A Not just that. There was another time when it

[17]was elevated outside the range of the therapeutic

[18]range. Specifically at -- there is one at 0820 on the

[19]18th where it was 118.

[20]Q All right. Now, moving on to the next

[21]paragraph, it says here, Dr. Hoag and -- the Lovenox,

[22]here it is. It says that the dose of 80 milligrams was

[23]the therapeutic dosage, and Mr. Johnson would have been

[24]fully anticoagulated. What do you mean by fully

[25]anticoagulated?

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[1]A Based on the dosages of Lovenox and treating

[2]any kind of problem, whether **[*108] [**108]** it be a pulmonary embolism,

[3]therapeutic 80 milligrams is the preventative dose,

[4]prophylactic dose, it would be in this case would be

[5]half, like 40. So the thought is giving one therapeutic

[6]dose of Lovenox would be like putting them on heparin

[7]and making it therapeutic, just a different type of

[8]heparin. So that would be giving someone in and of

[9]itself a dose that would anticoagulate them.

[10]Q Next sentence, Lovenox resulted in a severe

[11]overanticoagulated state in this patient. What is the

[12]basis for that opinion?

[13]A Well, because of that opinion, I can't remember

[14]specifically when the dose was given, exact time. But

[15]if someone is already -- say for instance, somebody

[16]isn't on any anticoagulation therapeutic Lovenox that

[17]will anticoagulate them, that will put them in

[18]therapeutic ranges.

[19]If somebody has already anticoagulated on

[20]another agent, giving them a therapeutic dose when they

[21]were already in the therapeutic dose, another bolus of

[22]heparin when they are already anticoagulated, like

[23]heparin, you start someone off, depending on their

[24]weight, 5000 of heparin, be like a person being **[*109] [**109]** in the

[25]therapeutic range and giving another bolus of 5000

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[1]heparin to make them supratherapeutic.

[2]Q Do you have an opinion regarding medical degree

[3]of certainty that a specific dosage of Lovenox made a

[4]difference in this case?

[5]A I think that the symptoms and signs that he had

[6]after that, if I remember correctly from the medical

[7]record, that is after he had received the Lovenox, it

[8]appeared that he had gotten worse.

[9]Q It says here, the next sentence, it says as a

[10]result Mr. Johnson suffered bleeding, severe

[11]neurological deterioration. Is that your opinion?

[12]A Yes.

[13]Q So he had a more severe bleed and a more severe

[14]neurological deterioration after he received the

[15]Lovenox?

[16]A Based on my recollection, yes.

[17]Q And your review of the records?

[18]A Yes.

[19]Q Now, this paragraph goes to the next page, says

[20]Dr. Logan was alerted to further neurological

[21]deterioration of the patient at approximately 3:00 a.m.

[22]Then in parentheticals it says six hours after

[23]therapeutic Lovenox. Is that accurate?

[24]A Yes, I think it was given at 9:00 p.m.

[25]something **[*110] [**110]** like that.

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[1]Q Then it says his response was insufficient and

[2]did not meet the standard of care and he ordered

[3]Valium.

[4]First of all, what do you believe the

[5]sufficient response -- what was insufficient about his

[6]response?

[7]A Was that about -- like I said, from what I read

[8]from the medical record. I get he was called and made

[9]aware there were some changes in his mentation, and he

[10]didn't examine the patient. I don't know the exact

[11]conversation he and the nurse had, but on a patient that

[12]is giving anticoagulation and given more anticoagulation

[13]to give him Valium without making a neurologic

[14]assessment does not meet standard of care in that

[15]respect.

[16]Q What effect, if any, does the Valium that this

[17]patient received have on the ability to assess him

[18]neurologically?

[19]A The problem is that Valium when given can cause

[20]you to become more somnolent, and a patient that has an

[21]intracranial process going on and there is increased

[22]intracranial pressure, one of the problems you can have

[23]is change in your respiratory pattern. You can have,

[24]like I spoke about earlier, change **[*111] [**111]** in sensorium and

[25]decreased alertness.

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[1]Sometimes it's hard to tell if someone was

[2]given Valium whether it's the Valium causing it, or if

[3]it's their increased intracranial pressure, so that a

[4]patient at risk for having increased intracranial

[5]pressure for hemorrhage, Valium shouldn't be given. And

[6]actually, I think all neurosurgeons are taught you don't

[7]give any sedatives or anything to decrease sensorium.

[8]Q Valium made it more difficult to assess this

[9]patient neurologically?

[10]A I don't know how he is responding to the

[11]Valium.

[12]Q So in this particular case, you don't know

[13]whether or not it made it more difficult, the Valium, to

[14]assess

[15]A I don't know if there is enough information in

[16]the medical record to make that assessment.

[17]Q You have no opinion to a reasonable degree of

[18]medical certainty whether or not the Valium made it more

[19]difficult to assess?

[20]A One of the side effects of Valium, it can make

[21]you sleepy. So I don't know in his particular case if

[22]that's what happened.

[23]Q Says here, okay, now the appropriate response,

[24]that phone call **[*112] [**112]** at 3:15 in the morning of June 19, 2001,

[25]would have been to discontinue the heparin and order a

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[1]neurologic workup for the patient.

[2]A The appropriate thing would have been for the

[3]patient to have a complete neurological assessment at

[4]that point in time, I personally would stop the heparin.

[5]In my opinion, it should have been stopped, but I wasn't

[6]there for the conversation so I don't know exactly what

[7]was said.

[8]I think the important thing was that at the

[9]time that he got the information, there was change in

[10]the mental status. A neurologic assessment should have

[11]been performed subsequently. After that, a CT scan

[12]should have been done.

[13]Q If a neurological assessment had been performed

[14]and the heparin had been discontinued and -- what was

[15]this patient's opportunity to recover or be cured at

[16]that point in time, 3:15 in the morning of June 18,

[17]2001?

[18]A Very good, I think.

[19]Q Do you feel that had the heparin been stopped

[20]at that time and neurologic assessment had been done at

[21]that point, that this patient would have recovered

[22]without any evidence of injury or damage? **[*113] [**113]**

[23]A It's a very generalized question because anyone

[24]that has any kind of trauma or any kind of insult to

[25]their brain, even if they make a recovery, can have any

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[1]neurological deficit. What you are meaning, could this

[2]guy have had a complete recovery from this, yes.

[3]Q He would have made a full recovery had the

[4]intervention been done at June 18, 2001?

[5]A I don't have a crystal ball. In my experience,

[6]reasonable medical certainty, if it had been stopped at

[7]that point in time and neurosurgical intervention, yes,

[8]he had a good chance of recovering, yes.

[9]Q Do you have an opinion whether he would have

[10]had any sequela from his intracranial hemorrhage?

[11]A Any kind of insult to the brain, you can't be

[12]absolutely certain there will be no neurologic

[13]sequellae. Because where it was, it would be

[14]contributing to problems he was experiencing. j

[15]But I think that you can be very functional

[16]with damage to frontal lobe, because it's not where your

[17]speech areas are. We are talking about functional

[18]existence. Yes, he could have made a functional

[19]recovery from this.

[20]Q So **[*114] [**114]** he would have, more probably true than not,

[21]survived his intracranial hemorrhage, had the

[22]intervention been done at 3:00 a.m.

[23]A Had there been intervention at that time, just

[24]stopping the heparin or neurosurgical intervention, yes,

[25]I think he would have had functional recovery.

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[1]Q What kind or degree of neurological deficits

[2]would you expect in this patient after such intervention

[3]had occurred?

[4]A There is no way I can know specifically what

[5]deficits he would have ended up with.

[6]Q Do you have an opinion what he would have?

[7]A No, because with the deficits that he had, he

[8]might not have ever gotten better.

[9]Q So from 3:00 o'clock in the morning then to

[10]when -- that's when Dr. Hogan is called, when Dr.

[11]Pham comes in the following morning -- do you see any

[12]evidence in the medical records of any neurological

[13]deterioration in the patient in that intervening period?

[14]A There is just some information in the medical

[15]record after communication between the nurse and his

[16]wife, just him being more confused.

[17]Q So --

[18]A He remained confused over that period **[*115] [**115]** of time

[19]it was documented, at 6:30.

[20]Q If Dr. Pham had intervened when he arrived June

[21]19, 2001, would the patient have likely made a

[22]functional recovery at that point in time?

[23]A Based on what I have seen in the medical

[24]record, yes.

[25]Q Again, you cannot tell me what deficits likely

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[1]would have resulted following that functional recovery?

[2]A I can't say specifically, no.

[3]Q By the way, do you have any criticisms of the

[4]care and treatment provided by Dr. Wright, the

[5]neurosurgeon called into this case?

[6]MS. KOROLL: Objection, foundation.

[7]THE WITNESS: I can't say specifically, because I

[8]don't know exactly what he did.

[9]Q BY MR. SNYDER: As you sit here now, you have

[10]not formulated any criticism of the care and treatment

[11]he offered this patient; is that fair?

[12]A I don't think I have enough information to make

[13]that assessment.

[14]Q So looking from the other end, Dr. Wright was

[15]called and eventually spoke with the family, and it was

[16]when the patient expired. You saw that part of the

[17]chart?

[18]A Yes.

[19]Q Are you critical at all of **[*116] [**116]** Dr. Wright's

[20]decision and/or the family's decision not to operate on

[21]Denton Johnson after Dr. Wright was called?

[22]MS. KOROLL: Objection, form, compound, foundation.

[23]THE WITNESS: I have no information about the

[24]conversation they had and exactly the patient's

[25]condition when they had that conversation, so I can't

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[1]speak intelligently on that.

[2]Q At some point did this patient -- okay. At

[3]some point was this patient in a position where he no

[4]longer had an opportunity to be cured from his

[5]intracranial hemorrhage, in your opinion?

[6]A I would assume that based on the medical

[7]records that at the point when the neurosurgeon spoke

[8]with the family, that's just based on the events that

[9]brought us to today that there was a point where he was

[10]no longer able to be helped.

[11]But the information I have surrounding that

[12]conversation how he was doing at that point in time I

[13]don't know.

[14]Q Okay. You are aware that this patient received

[15]Lovenox then on June 19, 2001 at around 9:00 o'clock

[16]p.m.

[17]A Yes.

[18]Q And then when -- my question is when was it --

[19]strike that. **[*117] [**117]** I think you told me he would have likely

[20]made a functional recovery when Dr. Pham saw the

[21]patient?

[22]A He didn't see him June 18. It was June 19.

[23]Q You are right. When Dr. Hogan gets called at

[24]3:00 o'clock a.m., Dr. Hogan, 7:00 or 8:00 on the 19th

[25]of June, he has an opportunity to recover from that

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[1]cranial hemorrhage?

[2]A Yes.

[3]Q At what point does that change, if you have an

[4]opinion?

[5]A Repeat the question.

[6]Q At what point does this patient no longer have

[7]an opportunity to be cured of his intracranial

[8]hemorrhage?

[9]A Are you saying has an opportunity to be cured,

[10]just making a functional recovery, or surviving it?

[11]Q Him surviving it, at what point does that come?

[12]He is no longer in a position he can survive it?

[13]A Well, I think that that's a tough question to

[14]answer just because whether or not discussion that the

[15]neurosurgeon had with the family, and there is a

[16]difference between making a functional recovery and

[17]survival, because someone can always survive and be

[18]unresponsive and just be alive.

[19]So it appears from what -- I mean **[*118] [**118]** reading what

[20]little information I have, I guess the decision was made

[21]not to do anything, based on the fact there was no

[22]longer the ability to make a functional recovery from

[23]there.

[24]Q What was the point he was no longer able to

[25]make a functional recovery?

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[1]A I don't know the time specifically, but in the

[2]chart here he was made do not resuscitate Saturday 2145

[3]June 20. So I don't know any time before then that

[4]decision was made, but that's the time the order was

[5]made there was nothing going to be done to save his

[6]life. I am not sure at what time the decision was made

[7]not to operate or do any --

[8]Q Those may or may not be different things which

[9]at some point the family makes a decision to do. At

[10]what point did it -- the bleed -- become so bad that

[11]there was nothing else to do, if you know?

[12]A Only thing I can draw from -- I can't remember

[13]the time, but this is once Dr. Wright had actually seen

[14]the patient, there was something I read -- there was a

[15]time at -- this is based on an exam documented by the

[16]nurse. There is a time when -- 2020 I think, on the

[17]20th -- where **[*119] [**119]** it looked like his neurologic exam changed

[18]precipitously, where it said he was only localizing the

[19]pain. I guess he had been a lot more alert and there

[20]was changes in his respiratory pattern.

[21]Before that, I don't see anything alluding to

[22]it. His GCS changed a little earlier, but I don't see

[23]anything that says specifically that's when the decision

[24]was made.

[25]Q I don't care. I don't care. That's not my

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[1]question.

[2]Do you have an opinion, to a reasonable degree

[3]of medical certainty, when this gentleman's intracranial

[4]hemorrhage became such that he was not going to make a

[5]functional recovery, or do you not have an opinion?

[6]A I don't know specifically.

[7]MS. KOROLL: Are you close?

[8]MR. SNYDER: Doing the best I can to be done with

[9]you here.

[10]Q BY MR. SNYDER: Now, this talks about -- you

[11]saw he was placed on ethyl alcohol withdrawal protocol;

[12]is that correct?

[13]Taking a look at that first page of the

[14]protocol where it has stage one, two, three, and four,

[15]do you recognize these as being signs and symptoms of

[16]alcohol withdrawal, in your opinion?

[17] **[*120] [**120]** A Yes.

[18]Q This is a fair and accurate summary of the

[19]signs and symptoms that one can see in ethyl alcohol

[20]withdrawal?

[21]A Yes.

[22]Q Are there any others that don't appear to be on

[23]the list that are on your list that come to your mind

[24]that you are not seeing there?

[25]A This seems like a pretty exhaustive list.

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[1]Q Going to the first page of your -- first page

[2]of your opinion here, it says,

[3]"Dr. Hunt will testify consistent with his

[4]background, experience, and training as a

[5]neurosurgeon."

[6]Is that true you are testifying based on your

[7]background, experience, and training as neurosurgeon?

[8]A Yes.

[9]Q There is a sentence here, talks about the side

effects. You have knowledge of the risks and side

effects of these medications, heparin, Lovenox, TnKase

and aspirin. All of those have risks?

A Yes.

Q What are the side effects of those medications?

A I don't know an exhaustive list of them. But

side effects is one, hemorrhage. Each one -- heparin

can cause thrombocytopenia, decreased platelets.

Lovenox being of course heparin, is **[*121] [**121]** the same.

Plavix can actually decrease the activity of

the platelets, doesn't decrease count. So basically the

biggest side effect is bleeding. Not just bleeding,

intracranial bleeding, but bleeding everywhere.

Q Then going down, it says,

"He will testify to the risk factors that

placed Denton Johnson at risk for intracranial

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bleeding, including hypertension, use of Tnkase, and

use of heparin, use of therapeutic dosage of

Lovenox."

Is that accurate?

A Yes.

Q Are you aware of any more risk factors that

this patient Denton Johnson had for that intracranial

bleeding other than those contained in that sentence?

A No, not that I know of.

Q "He will testify to Mr. Johnson's opportunity

for survival if the bleed had been diagnosed and

additional coagulation therapy has been avoided."

I think you indicated earlier you really are

more comfortable rather talking about what somebody's

opportunity for survival is in this case.

I'm more comfortable talking about what their

opportunity was for functional recovery.

A In making a neurosurgical **[*122] [**122]** decision in

discussing things with the family, it's a gray area of

outcomes, not just survival.

Q That's really what this should say, should talk

about what his opportunity is for functional recovery,

not outright survival.

A Correct.

Q "He will offer opinions on his prognosis for

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Denton Johnson's overcoagulation and use of Lovenox,

had not occurred."

What do you mean by overcoagulation?

A The same thing, over and anticoagulation just

meaning that making the blood a lot thinner than it

should be.

Q Okay.

Do you have any opinion as to when papilledema

would have been present in this particular patient?

A That's not an easy question to answer.

Papilledema is something that you don't see initially

when there is an increase in intracranial pressure.

Lots of times you see it with hydrocephalus,

but based on the physiology of it, lot of times not even

[15]see it unless you are an ophthalmologist and dilate the

[16]pupils and get a good look at the disk.

[17]Q You don't look to that to be the key

[18]determining factor of an early intracranial **[*123] [**123]** hemorrhage?

[19]A You wouldn't see it because having papilledema

[20]you have to have increased intracranial pressure. You

[21]can just have local pressure on those areas that give

[22]you neurologic deficits, without having increased intra

[23]cranial pressure.

[24]Q Do you have any information as to what this

[25]patient's daily ethyl alcohol intake that was reported

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[1]to his care providers was?

[2]A Not that I remember.

[3]Q Did you consider the ethyl alcohol withdrawal

[4]as potential explanation for any of his neurological

[5]problems?

[6]A I am sure it came up somewhere. I don't know

[7]just from reading this if he was on a protocol that came

[8]up, but in someone that's at risk for intracranial

[9]hemorrhage, more so than the whole population, even a

[10]patient that would go through withdrawal, he would still

[11]monitor neurological -- you would still make

[12]neurological assessment, do all those things. Just

[13]because someone may or may not go through withdrawal

[14]first thing we think is not alcohol withdrawal.

[15]Q In this particular patient, do you have an

[16]opinion whether or not he was or was not displaying

[17] **[*124] [**124]** withdrawal symptoms during his hospitalization?

[18]A The symptoms overlap, just based on what's

[19]there on the protocol.

[20]Q What does that mean, they overlap?

[21]A Some of the symptoms you would have from

[22]frontal lobe hemorrhage are some of the symptoms you see

[23]with ethyl alcohol withdrawal.

[24]Q Consumption of six beers a day, is that a

[25]sufficient regular alcohol intake to cause a patient to

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[1]go into alcohol withdrawal if there is a sudden

[2]sensation?

[3]MS. KOROLL: Assumes facts not in evidence. Calls

[4]for speculation.

[5]THE WITNESS: I would say yes and no. I see people

[6]drink a lot more than that and never go through

[7]withdrawal, and people who drink less than that, that

[8]do.

[9]Q BY MR. SNYDER: Is 12 beers a day a sufficient

[10]daily consumption of alcohol to cause ethyl alcohol

[11]withdrawal symptoms, if there is a sudden cessation?

[12]MS. KOROLL: Objection. No foundation. Relevance.

[13]Incomplete hypothetical.

[14]THE WITNESS: Just like I answered a minute ago,

[15]speculation, no way to know.

[16]MR. SNYDER: It is for some people and isn't for

[17]others.

[18]MS. **[*125] [**125]** KOROLL: Relevance to other people.

[19]THE WITNESS: There is no way I can answer that

[20]question because I don't know.

[21]MR. SNYDER: You don't know whether or not 12 beers

[22]a day is enough to go into alcohol withdrawal?

[23]MS. KOROLL: Asked and answered, incomplete

[24]hypothetical, not relevant to this case.

[25]THE WITNESS: I can't tell you an exact number of
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[1]what would cause you to go into withdrawal or not. If

[2]we are talking about general population, there is no way

[3]I can generalize to everybody.

[4]With regard to this gentleman, I have no idea

[5]what his drinking history was. All I can go by is

[6]things that are in the medical record. And he had some

[7]LFT's outside that hospital, someone who would be

[8]drinking whatever exorbitant amount of alcohol a day,

[9]whatever it might be, 0 not being able to say who would

[10]go.

[11]MR. SNYDER: Withdrawal or not, his LDH or any

[12]other levels elevated, I can't say usually. But a good

[13]predictor of somebody that might have a problem is LDH

[14]level decreased. Anything I have seen or heard that

[15]would lead me to believe anything different.

[16]Q BY **[*126] [**126]** MR. SNYDER: You saw in the medical record,

[17]it was recorded that the wife said the patient drinks 12

[18]to 24 beers a day. Did you see that?

[19]A I didn't see that. Only number I saw,

[20]something about six and then something about two or

[21]three. So I can't remember specifically what the number

[22]of drinks per day was.

[23]Q Would it be reasonable for -- to be on the

[24]lookout for ethyl alcohol withdrawal in a patient where

[25]the reports are they drank 12 to 24 beers day.
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[1]MS. KOROLL: Relevance.

[2]THE WITNESS: In a patient on anticoagulation

[3]therapy that they are at higher risk given those signs,

[4]because that's something more problematic based on the

[5]fact that they have those symptoms.

[6]Q BY MR. SNYDER: Those two processes can occur

[7]independently, the intracranial hemorrhage and ethyl

[8]alcohol withdrawal?

[9]MS. KOROLL: In general.

[10]THE WITNESS: In general, you can have a number of

[11]diseases, so just because people drink doesn't mean

[12]those that drink don't have intracranial hemorrhage.

[13]You can have numerous different problems; doesn't mean

[14]they are all mutually exclusive.

[15] **[*127] [**127]** The point I was trying to make, given a patient

[16]that is on this therapy, that a known side effect or a

[17]known problem that you see with this can be intracranial

[18]hemorrhage.

[19]First thing that should cross the mind that

[20]patient there is a displaying neurologic changes should

[21]be having in that cranial hemorrhage, no matter if it is

[22]the nurse, doctor, whoever is taking care of this

[23]patient.

[24]Q BY MR. SNYDER: Are you aware of -- let me ask

[25]you this, when you get called.

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[1]A case and a patient has suspected intracranial

[2]hemorrhage. Do you ordinarily undertake an analysis to

[3]determine whether or not -- or precisely when the bleed

[4]began? Is that part of what you do?

[5]MS. KOROLL: Objection, relevance.

[6]THE WITNESS: Usually when I get called, there is a

[7]known hemorrhage. And -- state that other question

[8]again.

[9]Q BY MR. SNYDER: Then when you get called in

[10]response to this known hemorrhage, is it your role to

[11]develop or determine what the treatment options are for

[12]the patient on a going-forward basis?

[13]A Yes.

[14]Q Do you as a neurosurgeon get called into a case

[15] **[*128] [**128]** in order to figure out retrospectively when somebody's

[16]bleed first started? Is that part of what you do?

[17]A The determination is never to figure out when

[18]exactly it started, it's just now there is a hemorrhage;

[19]what do we do with it.

[20]Q Are you aware of any generally accepted medical

[21]principles, whether in the literature or anything you

[22]received in your training that would allow neurosurgeons

[23]to differentiate between intracranial bleeds that were

[24]caused by TnKase versus those caused by heparin?

[25]A There is nothing on a physiologic level that

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[1]you can actually see, anatomical level you can see, to

[2]differentiate between the two. You can't differentiate

[3]between aspirin, Plavix, whatever; it's all a chemical,

[4]You can't differentiate what did what.

[5]MS. KOROLL: It's 6:00 p.m. and we have been going

[6]at least three hours. How much longer do you have?

[7]MR. SNYDER: I agree it is late, but we have taken

[8]a bunch of breaks. I am not over three hours.

[9]MS. KOROLL: Wrap it up.

[10]MR. SNYDER: I am doing my best.

[11]Q BY MR. SNYDER: Is pupillary response in the

[12]face of the **[*129] [**129]** type of intracranial hemorrhage Mr. Johnson

[13]had, is that something that waxes and wanes over time?

[14]A The only way pupillary response could change,

[15]for instance if a person has third nerve compression

[16]which is responsible for pupillary response, causing

[17]compression of that nerve, the only way that that would

[18]sort of wax and wane, as you call it or go back to

[19]normal size is if there is some kind of treatment to

[20]decrease the intracranial pressure.

[21]Q Do you have any opinion about whether or not

[22]this particular person had that third nerve compression,

[23]Mr. Johnson?

[24]A I don't know of anything in the medical record

[25]that said anything about his pupils --

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[1]Q Okay.

[2]A -- being blown, as we call it, or having

[3]compression of the third nerve.

[4]Q So if his pupils were not blown, conducting

[5]pupil checks early on in his stay would not have sped up

[6]his diagnosis of intracranial bleed?

[7]MS. KOROLL: Objection.

[8]THE WITNESS: If his pupils weren't blown at what

[9]point?

[10]Q BY MR. SNYDER: You just indicated that they

[11]weren't blown at any point and it would not **[*130] [**130]** have aided

[12]or sped up the diagnosis of a --

[13]MS. KOROLL: Objection.

[14]THE WITNESS: That's like playing Monday when you

[15]are a quarterback. They should have been documented and

[16]seen throughout the time, but at the very end, looking

[17]back, if there wasn't any kind of intervention, then

[18]they didn't change.

[19]MR. SNYDER: I will read Mrs. Johnson's statement.

[20]

[21]EXAMINATION BY MS. KOROLL:

[22]Q Would you agree Denton Johnson was deprived of

[23]a chance to recover from his illness due to the failure

[24]of the Dr. Hogan and Dr. Pham to recognize the signs and

[25]symptoms of his intracranial bleed and promptly

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[1]intervene, correct?

[2]A Yes.

[3]Q You would agree Denny was deprived of a chance

[4]to recover from his illness due to the failure of the

[5]nursing staff to properly control the heparin protocol

[6]and keep his APTT in the therapeutic range of 60 to 80?

[7]A Yes.

[8]Q You would agree Denny Johnson was deprived of

[9]an opportunity to survive due to the failures of Dr.

[10]Hogan and Dr. Pham to recognize the signs and symptoms

[11]of intracranial bleed and to promptly intervene?

[12] **[*131] [**131]** A Yes.

[13]Q You would agree that if Denny Johnson -- you

[14]would agree that Denny Johnson suffered from an

[15]intracranial hemorrhage and had clinical evidence of a

[16]intracranial hemorrhage starting with the morning of the

[17]18th when his wife said at 6:00 a.m. that he was hearing

[18]things, having hallucinations, and was urinating all

[19]over the room, correct?

[20]A Yes.

[21]Q A bleed was present at that time, correct?

[22]A Yes.

[23]Q Intervention at that time would have given Mr.

[24]Johnson an opportunity to recover and survive from his

[25]illness?

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[1]A Yes.

[2]Q Now, the questions I am asking you, and are

[3]based on the opinions that you authored and those

[4]opinions are all within a reasonable degree of medical

[5]and surgical certainty based upon your background,

[6]training and experience as a physician?

[7]A That is correct.

[8]Q Your opinions as regard Mr. Johnson's loss of a

[9]chance to recover from his condition and loss of a

[10]chance to survive from his conditions, those opinions

[11]are offered within a reasonable degree of experience,

[12]training and experience?

[13]A That is correct. **[*132] [**132]**

[14]Q The opinions you hold in your hand, are those

[15]still your opinions today other than the minor

[16]correction -- I believe we had some words

[17]overcoagulation, anticoagulation -- the substance of the

[18]opinions are still your opinions today?

[19]A I agree, except the one you mentioned and the

[20]one I mentioned earlier, that is correct.

[21]Q You would agree that you are familiar with the

[22]requirements of the nursing staff to report to you as to

[23]facial changes in patient's condition; correct?

[24]A Correct.

[25]Q And you work with nurses on a daily basis and

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[1]are familiar with the standard requiring the nurse to

[2]report a change in a patient's level of consciousness,

[3]correct?

[4]A Absolutely.

[5]Q And would you agree that the nurses have the

[6]responsibility to report signs and symptoms of altered

[7]sensorium, correct?

[8]A Correct.

[9]Q And in this case and your review of the

[10]documents, do you note any evidence during the day on

[11]the 17th of the nurses reporting any changes in

[12]sensorium?

[13]A No, not to my recollection.

[14]Q And Mrs. Johnson wrote in his deposition **[*133] [**133]** as

[15]well as in her notations talked about the morning of the

[16]18th coming into the room and having Denny hearing

[17]buckets dropping and having him make comments about

[18]having a health care aide wash his personals, correct?

[19]A That was the most interesting part of it,

[20]because it sounds like this was some inappropriate

[21]behavior from a person that normally wouldn't behave

[22]that way and that was one of the first signs something

[23]was wrong.

[24]Q Your opinion within a reasonable degree of

[25]medical certainty, Mr. Johnson exhibited spraying urine

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[1]around the room and asking another person to wash his --

[2]he referred to them as personals; do you believe that

[3]was consistent with Mr. Johnson suffering from a bleed

[4]in the frontal lobe?

[5]A Yes, I do.

[6]Q You would agree, Doctor, that the continuation

[7]of any coagulation therapy with signs and symptoms of

[8]neurological alteration is contraindicated and deviation

[9]from standard of care?

[10]A Yes.

[11]Q You would agree when Mr. Johnson first

[12]exhibited changes in sensorium and change in urinary

[13]pattern such as incontinence that the staff **[*134] [**134]** at St.

[14]Anthony Hospital and staff had deviated from the

[15]standard of care in failing to stop anticoagulation

[16]therapy, correct?

[17]A Yes.

[18]Q Do you believe at the time that Mr. Johnson

[19]started suffering these alterations on the morning of

[20]the 18th until he finally collapsed on the 20th and had

[21]a flaccid extremity that there was no evidence in this

[22]medical record of a comprehensive neurological

[23]examination as required by the standard of care,

[24]correct?

[25]A Not that I can remember. I don't remember

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[1]specifically when he was evaluated by the neurologist or

[2]the neurosurgeon. But from what I remember in the

[3]records, I don't see any adequate assessment of

[4]neurologic status.

[5]Q If I told you that the neurologist and

[6]neurosurgeon did not see Denny until after he exhibited

[7]flaccidity?

[8]A Yes.

[9]Q The purpose of performing a neurological

[10]assessment on a patient such as Denton Johnson is to

[11]find or rule in or rule out?

[12]A Yes.

[13]Q As an individual who had thrombolytic therapy

[14]and was continued on heparin therapy and was assessed

[15]for heparin therapy? **[*135] [**135]**

[16]A Yes.

[17]Q The staff and nurses had a responsibility to

[18]assess Mr. Johnson for those alterations?

[19]A Yes.

[20]Q Staff failed to do so?

[21]A Yes.

[22]Q You agree that failure caused or contributed to

[23]Denton Johnson's being denied a chance for survival?

[24]A Yes.

[25]Q You were asked questions about Kishwaukee and

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[1]the bolus of heparin. I will represent to you at

[2]Kishwaukee Mr. Johnson received a bolus 5000, then

[3]maintained on a heparin drip; therefore, any question

[4]regarding the half life of that bolus, it would be

[5]altered because he was still on heparin?

[6]A Right.

[7]Q The half life of heparin would not be

[8]significant if the heparin continued, correct?

[9]A Correct, in one respect, that the half life of

[10]the initial dosage would be the same, but yes, because

[11]you are actually continuing to give heparin there was no

[12]way to adequately assess that.

[13]Q In your opinion did Denton Johnson have an

[14]injury to the micturation center of his brain that was

[15]evidenced on the morning of June 18, 2001 when he

[16]started having episodes of incontinence?

[17] **[*136] [**136]** A I would say that he absolutely had an injury to

[18]that would be incorrect. I would say that because of

[19]his incontinence we know that there is some compression,

[20]whether it be direct injury from the hemorrhage itself

[21]in the micturation center, or pressure from the

[22]hemorrhage on it, but there is alteration in that

[23]center, and is probably why he was having incontinence.

[24]Q Is that within a reasonable degree of

[25]certainty?

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[1]A Yes.

[2]Q With regard to emesis, you would agree emesis

[3]is a symptom of neurological alteration?

[4]A Yes.

[5]Q And that for Mr. Johnson the source of his

[6]emesis needed to be investigated and then neurological

[7]injury ruled in or out; correct?

[8]A Yes.

[9]Going back to your question, when you said if a

[10]neurologic problem -- well, it's definitely associated

[11]with neurologic problems. You can have nausea from

[12]other things, but in the things that have been raised

[13]today, yes, it's indicated one of those.

[14]Q Questions you ape asked about alcohol

[15]withdrawal, you indicated that there are symptoms of

[16]alcohol withdrawal same symptoms of intracranial

[17] **[*137] [**137]** hemorrhage?

[18]A Yes.

[19]Q In Mr. Johnson, was histories of the use of

[20]TnKase, concurrent use of heparin, as well as the

[21]Lovenox bolus and Plavix he received, you would agree

[22]that the health care providers had to assess and form a

[23]differential diagnosis of independent cranial bleed

[24]instead of attributing it to bleed from alcohol

[25]withdrawal?

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[1]A Yes, that's initially because the patient was

[2]in ICU; they had a high risk to having intracranial

[3]hemorrhage so closely monitored signs of hemorrhage, not

[4]alcohol withdrawal. Even patients who don't have a --

[5]watched closely have a neuro check perform on them

[6]because of that risk for intracranial hemorrhage.

[7]Q The questions Counsel asked you about six beers

[8]a day, 12 beers, et cetera, the information you would

[9]need to know in order to determine if this was alcohol

[10]withdrawal would be when did Mr. Johnson have his last

[11]drink?

[12]A Correct.

[13]Q This history of 12 beers six months ago, it

[14]could not be an alcohol test of his hospital admission?

[15]A That's correct.

[16]Q No evidence in the evidence to indicate there

[17] **[*138] [**138]** is no record of when he had his last drink?

[18]A As far as I can tell.

[19]Q Would you agree Dr. Pham deviated from the

[20]standard of care by assigning an alcohol withdrawal

[21]while failing to investigate neurological alteration?

[22]A That's correct.

[23]Q Denny was put on Librium protocol and Ativan.

[24]Would you agree the administration of Librium, Ativan,

[25]and Valium, together, within a reasonable degree of

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[1]medical certainty, altered Denny's mental status so he

[2]was not able to be assessed for alteration?

[3]MR. SNYDER: Call for speculation.

[4]THE WITNESS: I would expect one of those agents in

[5]and of itself could possibly alter the level of

[6]consciousness, but I don't know exact timing of all

[7]three of those being given, in what proximity of

[8]dosages, and so being given those medications, yes,

[9]those could have decreased sensorium and made it harder

[10]to assess.

[11]MR. SNYDER: Also beyond 13.

[12]MS. KOROLL: When Denny had finally collapse before

[13]being diagnosed with bleed within an hour time if he had

[14]received 10 milligrams of Valium, 50 Benadryl, as well

[15]as Librium and Ativan, **[*139] [**139]** do you believe that would have

[16]contributed to alteration in the neurological status,

[17]and made it difficult to make an assessment to determine

[18]the existence of a bleed?

[19]A Yes.

[20]Q You agreed the administration of those four

[21]drugs within a two-hour interval of time would be a

[22]deviation from the standard of care in those dosages?

[23]A Yes.

[24]Q Pupillary assessment is a method of assessing

[25]an individual for neurological status?

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[1]A Correct.

[2]Q And determining whether or not the pupils are

[3]equal and reactive to light and accommodation as part of

[4]a neurological examination?

[5]A Correct.

[6]Q You gave some answers in broad categories of

[7]head trauma. You talked about head trauma being contra

[8]indication for use of thrombolytic therapy. Mr. Johnson

[9]had an episode did is not find any trauma to head and he

[10]had a negative CT. Do you consider that in the category

[11]of head trauma?

[12]MR. SNYDER: Object, calls for speculation. The

[13]Doctor has never reviewed --

[14]THE WITNESS: I don't remember any record

[15]specifically saying that he had trauma.

[16]Q BY MS. **[*140] [**140]** KOROLL: You reviewed ER records and I

[17]think specifically you reviewed neurological assessment,

[18]and I think you indicated to Counsel that you reviewed

[19]cranial nerves assessment, et cetera, and the assessment

[20]of the head, HEENT, doesn't show any trauma to Denny's

[21]head; correct?

[22]A Correct.

[23]Q So a syncopal episode without any -- strike

[24]that.

[25]Your questions regarding head trauma were

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[1]answered on a broad category, different types of head

[2]trauma?

[3]A Yes.

[4]Q Penetrating trauma, such as a gunshot?

[5]A Correct.

[6]Q And you -- Denny's syncopal episode with a

[7]negative CT after the syncopal episode, do you believe

[8]that the fact he had a syncopal episode, whether or not

[9]he hit his head or not, he still would have been a

[10]candidate for thrombolytic therapy?

[11]A Yes.

[12]Q I'd like to talk about Lovenox a minute. I

[13]think there is confusion as to Lovenox. I would like to

[14]just omit the issue when it was given and ask you simply

[15]-- is it your opinion, within a reasonable degree of

[16]certainty -- that the administration of a therapeutic

[17]dose of Lovenox at **[*141] [**141]** the time that it was given caused --

[18]strike that -- contributed to the neurological bleeding

[19]that Mr. Johnson was suffering?

[20]A Yes.

[21]Q And that is based on the fact that Lovenox

[22]therapy is also a low molecular heparin as heparin

was

[23]also being infused?

[24]A Correct.

[25]Q And that those in concert together would alter

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[1]Mr. Johnson's coagulation status?

[2]A Correct.

[3]Q You also noted on June 18 the APTT at 7820 in

[4]the morning was greater than 118. When you talk about I

[5]think you use the term --

[6]A Supratherapeutic.

[7]Q And you would consider an APTT of 118 to be

[8]supratherapeutic, correct?

[9]A Yes.

[10]Q You would agree that a patient receiving

[11]TnKase, that the literature calls for receiving TnKase

[12]and then receiving heparin, would you agree the

[13]literature calls for heparin to be tightly controlled

[14]within therapeutic range and to avoid APTT's in excess

[15]of greater than 80, correct?

[16]A Yes.

[17]Q In this case Mr. Johnson on occasion had APTT's

[18]greater than 100, correct?

[19]A Correct.

[20]Q And you believe that that contributed **[*142] [**142]** to the

[21]intracerebral bleeding that occurred in Mr. Johnson?

[22]A Yes.

[23]Q You would agree the standard of care required

[24]stopping of Plavix therapy for Mr. Johnson once he had

[25]evidence of altered sensorium and neurological changes,

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[1]and that full investigation should have been performed

[2]before continuing to give Plavix, correct?

[3]A I think all of the anti-coagulants should have

[4]been stopped. Also involved in that is because aspirin,

[5]Plavix, aspirin in platelets inhibit platelet function;

[6]that, along with stopping the PCF span to make sure

[7]functioning patients that need a platelet transfusion,

[8]even if Plavix is stopped, dysfunction continues to

[9]remain.

[10]Q So when you gave the opinion before regarding

[11]the deviation from the standard of care for failure to

[12]stop anticoagulation therapy, it is also your opinion it

[13]was a deviation from the standard of care to fail to

[14]stop anti-platelet agents, correct?

[15]A Correct.

[16]Q And you would consider Plavix an anti-platelet

[17]aggregation drug, correct?

[18]A Yes.

[19]Q You indicated that once the Plavix was stopped,

[20]I'm **[*143] [**143]** sorry, you believe fresh frozen plasma should have

[21]been given?

[22]A I said once the Plavix was stopped, the

[23]inability of platelets to perform their duties even

[24]though Plavix stopped heparin, anything else, the

[25]platelets still don't function correctly. So to have

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[1]the platelets function correctly you have to transfuse

[2]the patient with platelets.

[3]Q In Mr. Johnson's case, he had a midline shift?

[4]A Yes.

[5]Q Does -- within a reasonable degree of

[6]certainty, did the midline shift occur immediately when

[7]the intracranial bleeding started?

[8]A There is no way to know that specifically,

[9]because there is no way to know specifically how big the

[10]bleed was at the time it started.

[11]Q Please describe in layman's terms of the

[12]significance of the facts that -- the significance of

[13]Mr. Johnson's condition, that there was a right to left

[14]midline shift present.

[15]A I think that even more -- how can I say -- I

[16]think the more important, more than the right to left

[17]midline shift, there wasn't a huge shift, was the fact

[18]that there was hemorrhage going interiorly in the

[19]frontal **[*144] [**144]** lobe, which caused more compression in the

[20]ventricular system, and therefore increased the

[21]hydrocephalus, basically buildup of the spinal fluid in

[22]the ventricular system.

[23]Q What happened in the hemorrhage with the

[24]foramen of Monroe?

[25]A The more important thing is not the shift, but

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[1]the fact the hemorrhage was in such a spot that

[2]interiorly was compressing the right frontal horn of

[3]lateral ventricle and foramen of Monroe, lateral and

[4]third ventrical; therefore, on the film you see elements

[5]of hydrocephalus, no outflow tract for the spinal fluid

[6]that causes intracranial fluid.

[7]The right to left shift of the frontal lobe

[8]couldn't acutely cause you to develop hydrocephalus, and

[9]that in and of itself can cause you to pass just because

[10]of the effects it has on intracranial pressure.

[11]What that does is cause the brain to herniate.

[12]once you have enough pressure build up from spinal

[13]fluid.

[14]Q What about Mr. Johnson; what was the cause of

[15]the onset of his flaccid extremities that occurred at

[16]7:40 in the morning? What causes that?

[17]A I can't remember. Was it just **[*145] [**145]** left side

[18]flaccid, or all of his --

[19]MR. SNYDER: Just left side.

[20]Q BY MS. KOROLL: Show you what the nurse

[21]indicates. 7:40, patient is unable to move upper left

[22]extremity and left lower extremity.

[23]A That would have to be from the hemorrhage in

[24]the right frontal lobe, which was compressing the motor

[25]strip posteriorly.

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[1]Q What is your basis for that opinion?

[2]A Well, obviously, seeing anatomically where the

[3]hemorrhage is, just from it being on the contralateral

[4]side to the hemorrhage.

[5]Q In terms that a jury will understand, it's

[6]because the bleed was on the opposite side of the side

[7]of the body affected, correct?

[8]A Yes.

[9]Q When you say contralateral, that's what you

[10]mean?

[11]A Correct.

[12]Q You believe that the presence of the hemorrhage

[13]in that area caused him -- that the hemorrhage -- strike

[14]that. Do you believe that the hemorrhage -- strike

[15]that. Between June 18 in the morning when he started

[16]exhibiting symptoms until the morning of June 20th at

[17]7:40, would you agree, Doctor, that you believe the

[18]hemorrhage worsened, correct? **[*146] [**146]**

[19]A Yet the reason the hemorrhage worsened, looking

[20]at the medical records, he started to develop a

[21]hemiplegia. Looks like he had a strong left side -- it

[22]wasn't as strong -- left lower extremity was flaccid.

[23]So in the whole span of time he went from having a weak

[24]upper extremity to a flaccid whole left side.

[25]So that would lead me to believe that it wasn't

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[1]a global increase in intracranial pressure because that

[2]wouldn't just effect one side. It was a local increase

[3]in pressure that was -- that would be caused by

[4]increased bleeding in that area.

[5]I don't have a CT scan to show it, but based on

[6]the clinical exam, it would have to get bigger to show

[7]it's more affected on that side.

[8]Q The questions Counsel asked you about when Mr.

[9]Johnson -- at what point Denny couldn't survive, you

[10]would agree that on the 20th when the bleed was

[11]discovered, a neurological consult was made, interaction

[12]with the family went on, and the decision was made for

[13]DNR status?

[14]A Yes.

[15]Q When that decision was made for DNR status,

[16]there was no further treatment of his hemorrhage that

[17] **[*147] [**147]** occurred in his head, correct?

[18]A Correct.

[19]Q As a result of leaving the hemorrhage

[20]untreated, Mr. Johnson developed an ongoing

[21]deterioration of his neurological status, resulting in

[22]his death, correct?

[23]A Yes.

[24]Q And you believe he had an opportunity to be

[25]treated until that decision-making process was in place

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[1]and the decision was made not to treat; correct?

[2]A Correct.

[3]Q And because you don't have the information

[4]exactly what the neurosurgeon said in the entire

[5]discussions back and forth, you are not going to offer

[6]an opinion as to whether that was a reasonable course of

[7]action at that time?

[8]A Correct.

[9]MS. KOROLL: Okay.

[10]

[11]FURTHER EXAMINATION BY MR. SNYDER:

[12]Q The increased risk of potential intracranial

[13]bleed that exists when a patient has an APTT level that

[14]is in the supratherapeutic range, that increased risk is

[15]present only during the time that they are in that, as a

[16]result of being in the supratherapeutic range, only at

[17]the time they are in the supratherapeutic range; is that

[18]correct?

[19]A I think first when a patient **[*148] [**148]** is on

[20]anticoagulants, they are at risk to bleed. When that

[21]supratherapeutic range -- I can't say if it doubles or

[22]triples, but is increased in the supratherapeutic range.

[23]Now the question is, how often is the APTT drawn?

[24]If it's drawn every hour, like when I was in

[25]training, we would draw up a clotting time, because you

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[1]do it every half hour. When APTT is drawn, sometimes

[2]it's drawn every four hours to six hours, there is no

[3]way to know how high the heparin has gone.

[4]But if it's supratherapeutic and the next one

[5]is supratherapeutic, you would think it would continue

[6]to be supratherapeutic at that time.

[7]Q My question is if it's supratherapeutic and the

[8]next one is not, then they are no longer at increased

[9]risk of bleed due to the --

[10]MS. KOROLL: Foundation.

[11]THE WITNESS: If you are saying you are at increased

[12]risk to have a hemorrhage when you are in the

[13]supratherapeutic range, then --

[14]Q BY MR. SNYDER: Then once they come out --

[15]A You are not at that same increased risk that

[16]you would be at, if that's the supposition.

[17]Q That's my point. Let **[*149] [**149]** me use the wrong numbers

[18]for an example. Let's say the risk of intracranial

[19]bleed is X, because you are on anticoagulation, well

[20]controlled, therapy.

[21]If you allow that anticoagulation to go into

[22]supratherapeutic range, it's at X plus something.

[23]That's your opinion. You have got this net increase in

[24]risk due to not only being on the anticoagulation, but

[25]little more or some measure of more risk due to being at

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[1]supratherapeutic range?

[2]A Yes.

[3]Q Do you return back down to the original risk

[4]that you were at for being on therapeutic therapy once

[5]your APTT therapy goes back down to therapeutic range?

[6]MS. KOROLL: Objection, foundation, incomplete

[7]hypothetical.

[8]THE WITNESS: Hypothetically thinking, you would

[9]think that problem is -- I don't think anyone knows.

[10]Couple different things. Because you have been in the

[11]supratherapeutic range back to normal, are you at

[12]increased risk but not as high an increased risk because

[13]now you are back down to normal.

[14]Also, with the patients being on Plavix and

[15]aspirin, you can't determine how much risk they are at

[16]on all **[*150] [**150]** those medications because -- all that's going to

[17]be supposition.

[18]Q BY MR. SNYDER: I just want to isolate that one

[19]variable. To the extent there is increased risk being

[20]in that range, does that risk remain, or do you return

[21]back to the original level of risk once your APTT level

[22]range changed back to the therapeutic level?

[23]A No one knows what the heparin did in between

[24]the times you measured it, so there is no way to have an

[25]experiment study to figure that out.

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[1]MR. SNYDER: To the extent your opinion indicates

[2]that there was a hemorrhage present on the morning of

[3]the 18th, that part of the opinion is based solely on

[4]the wife's deposition testimony and the narrative that

[5]she wrote?

[6]A Yes.

[7]Q Are you able to say in light of the location of

[8]this guy's bleed, when it was that his motor strength or

[9]response on his extremities would have been altered in

[10]such a manner that it would have been clinically

[11]evident? Or is that something you are not able to --

[12]A I only go by medical records that was

[13]documented. I can't say it wasn't a week before that.

[14]He could have **[*151] [**151]** been lying in bed not having it tested.

[15]And that was the first time it was tested in the medical

[16]records, best of my knowledge.

[17]Q Morning of June 20?

[18]A I don't remember a specific time.

[19]MS. KOROLL: It would have been 18th, from 11 to --

[20]THE WITNESS: So June 19 in the morning it showed

[21]weak and unsteady gait. He needed assistance times two,

[22]two people.

[23]Q BY MR. SNYDER: Is that the first time that

[24]you have an opinion to a reasonable degree of medical

[25]certainty that there was any deficit in motor strength

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[1]or response as a result of the bleed?

[2]A From what I can see, yes.

[3]MS. KOROLL: Based on what is recorded in the

[4]medical records you are asking?

[5]THE WITNESS: Yes.

[6]Q BY MR. SNYDER: Now, when was it, 7:40 a.m. on

[7]the 20th was when the flaccid left side was discovered?

[8]A Yes.

[9]Q You don't have any quarrel with the idea at

[10]around that time is when he became flaccid on the left

[11]side?

[12]MS. KOROLL: Objection, foundation.

[13]THE WITNESS: That's the only thing that alludes to

[14]it. Those before that, he needed assistance, that **[*152] [**152]** he

[15]was weak was the day before, that that led -- that let's

[16]you know something is going on with that side where he

[17]hadn't been.

[18]MS. KOROLL: You are asking him does he think this

[19]happened at 7:30, 7:40. Does he know based on any prior

[20]assessment?

[21]MR. SNYDER: Right.

[22]THE WITNESS: There is nothing that says, only thing

[23]alluded to him being weaker.

[24]Q BY MR. SNYDER: You are not saying it was

[25]earlier than 7:00 a.m?

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[1]A Not documented.

[2]Q Do you have an opinion?

[3]A There is no way I can speculate. It is not

[4]documented.

[5]Q Now, at 7:40 when the patient was noted to have

[6]this flaccid left side, they called the doctor,

[7]cardiologist, cardiologist called in a neurologist. Did

[8]you see that?

[9]A Couldn't remember exact events. Sounds about

[10]right.

[11]Q Presuming that that is true, 7:40 is when the

[12]flaccid left side was discovered; they called the

[13]cardiologist, and the cardiologist calls in a neurology

[14]consult.

[15]Assuming that to be true, do you have any

[16]opinion as to whether or not this patient's outcome

[17]would have been different at **[*153] [**153]** all if a neurology consult

[18]had been called in two hours earlier than that?

[19]A I don't know.

[20]MS. KOROLL: Foundation.

[21]THE WITNESS: Because I don't know exactly when his

[22]arm became flaccid. Maybe he was sleeping. Till then,

[23]I don't know. If he were asleep up till 7:40 in the

[24]morning, there would be no way to assess it.

[25]Q BY MR. SNYDER: You saw he was examined by the

154

[1]cardiologist at 7:40 a.m. in the progress notes?

[2]A Here in the nursing notes says he cancelled the

[3]procedure at 8:00. Assume that was 7:00, whatever.

[4]Q Cardiologist saw him at 7:00, wrote a note

[5]after the left side flaccid notes, then 8:00, the

[6]neurologist was called in. Do you have any opinion as

[7]to whether or not the neural consult had been called in

[8]two hours earlier than it was, whether or not that would

[9]have been made any difference in the outcome for

this

[10]particular patient?

[11]A Let me understand what you are saying. You are

[12]saying when the cardiologist examined him at 7:00, he

[13]didn't notice any flaccid.

[14]MS. KOROLL: No, not saying that.

[15]THE WITNESS: Hold on. This comes full **[*154] [**154]** circle,

[16]then, because he did actually document neurologic

[17]assessment, because he could have easily -- you know, if

[18]he didn't document the assessment, talk to the guy and

[19]never assessed whether he can move that left side or

[20]not, there is no way to know just because a doctor was

[21]there. He didn't say anything. There is no note to say

[22]he actually did a neurologic assessment.

[23]And I would assume we haven't looked at all of

[24]his notes, but in any of his notes there is a complete

[25]neurologic assessment. And without that, there was no

155

[1]way we can time it, no way to say he was flaccid,

[2]whatever time you saw him.

[3]Q BY MR. SNYDER: Assuming he wasn't -- assuming

[4]he was not flaccid at 7:00 in the morning when Dr. Hogan

[5]saw him, do you have an opinion whether the outcome

[6]would have been different if the neurologic consult had

[7]been called in two hours than what it actually was

[8]called in?

[9]MS. KOROLL: That's an incomplete hypothetical.

[10]THE WITNESS: What I can say, based on what you are

[11]saying, if he had a progressive neurologic deficit it's

[12]always better to get to someone sooner than **[*155] [**155]** when they

[13]start developing deficits.

[14]Once you start developing deficits down the

[15]chain of those kind of things, you might not have a good

[16]outcome. To get to those before you start having that

[17]outcome would be better.

[18]Q Can you say whether or not it would have been

[19]called in two hours earlier, and it would have prevented

[20]his death. Or is that cutting it too fine?

[21]A That's cutting too fine, about survival and

[22]outcome, those things.

[23]If you talk specifically about decreasing the

[24]chance from having a flaccid left side, if some

[25]intervention were taken at the time when he was not

156

[1]flaccid, then the chance of him becoming flaccid is

[2]extremely less or decreased, because if he didn't have

[3]it, you did intervention, increased the pressure, and he

[4]probably would have never had a flaccid left side.

[5]Q So it's the intervention time that makes the

[6]difference, not when the neurologist --

[7]A It's the intervention.

[8]Q Any time?

[9]A Depending what you call it, intervention,

[10]calling the neurologist, or operating. Intervention,

[11]neurologist was called, CT was performed, **[*156] [**156]** but that's not

[12]a treating intervention so to speak.

[13]So from what I see, there wasn't intervention

[14]performed, it was just he was found to be flaccid on the

[15]left side and then the neurologist was called.

[16]Q If the neurologist had been called at 5:00 a.m.

[17]rather than sometime after 7:40, would this patient have

[18]survived his intracranial bleed?

[19]MS. KOROLL: Incomplete hypothetical.

[20]THE WITNESS: Once again, exact same question,

[21]because I have no way of knowing this is all

[22]hypothetical. I don't think that -- I can't give you a

[23]better answer looking at a hypothetical situation.

[24]The facts are that this is when it was shown,

[25]could he have been flaccid on that side prior to 7:00

157

[1]o'clock, sure. There is no neurologic assessment of

[2]anything before that 4:07 time he actually had a flaccid

[3]left side. So I can't say.

[4]Q BY MR. SNYDER: Okay. Do you have any opinion

[5]as to -- do you have enough information to have an

[6]opinion as to whether or not this patient's syncopal

[7]episode where he hit his head, whether or not that

[8]increased his chance of intracranial hemorrhage?

[9] **[*157] [**157]** A Based on medical records, there was no sign of

[10]trauma. So in a patient that has had no trauma, that

[11]has no intracranial process, head CT, I can't offer an

[12]opinion without more information.

[13]Q Were you aware prior to Counsel's questioning

[14]patient had a syncopal episode? You are aware?

[15]A It's in there, yes.

[16]MR. SNYDER: That's it.

[17]

[18]FURTHER EXAMINATION BY MS. KOROLL:

[19]Q If Mr. Johnson had been -- his bleed had been

[20]diagnosed, before he exhibited flaccidity of his

[21]extremity, do you believe that he would have a greater

[22]opportunity to recover and survive from his condition

[23]based on a reasonable --

[24]A Absolutely.

[25]Q You would agree that if Mr. Johnson had been

158

[1]diagnosed prior to having the flaccid extremities that

[2]the effectiveness of treatment would have been greater?

[3]A Absolutely.

[4]Q And would you agree that at the point where he

[5]exhibited the flaccid extremities, that gave him a

[6]poorer prognosis for recovery and survival?

[7]A Yes, because it showed progressive neurologic

[8]deficit.

[9]MR. SNYDER: The envelope you got your materials in

[10] **[*158] [**158]** is Exhibit 18.

[11](Defendant's Exhibit 18 was marked for

[12]identification.)

[13]THE WITNESS: Well, yes.

[14]MS. KOROLL: They are all in order.

[15]I put a green sheet of paper -- you have

[16]Exhibits 1 through 18. I have Exhibit 13. You have a

[17]green -- you have a green sheet of paper that says

[18]Exhibit 13 is with plaintiff's attorney.

[19]MR. SNYDER: Exhibit 6 is -- I want to count how

[20]many this is, five typewritten pages.

[21]Please take these, and attach them to my copy,

[22]the original deposition transcript. Don't make copies

[23]of exhibits for Ms. Koroll's copy. I would like to have

[24]my copy to be a mini with an index on it. I prefer it

[25]on an extra CD. If you can't do CD, I want an ASCII

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[1]STATE OF CALIFORNIA )

[2]: ss

[3]COUNTY OF ORANGE )

[4]

[5]

[6]I, the undersigned, a Certified Shorthand

[7]Reporter of the State of California, do hereby certify:

[8]That the foregoing proceedings were taken

[9]before me at the time and place herein set forth; that

[10]any witnesses in the foregoing proceedings, prior to

[11]testifying, were placed under oath; that a verbatim

[12]record of the proceedings **[*159] [**159]** was made by me using machine

[13]shorthand which was thereafter transcribed under my

[14]direction; further, that the foregoing is an accurate

[15]transcription thereof.

[16]I further certify that I am neither financially

[17]interested in the action nor a relative or employee of

[18]any attorney of any of the parties.

[19]IN WITNESS WHEREOF, I have this date subscribed

[20]my name.

[21]

[22]Dated:_____

[23]/s/ Corinne P. Robertson

[24]Certificate No. 7362
Corinne P. Robertson, CSR

[25]

Go to table1

[13]

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Go to table2

**[*160] [**160]**

[20]

[21]

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[24]

[25]
164

**Table1 (Return to related document text)**

**I N D E X**

**FRIDAY, JANUARY 6, 2006**

| **WITNESS** | **EXAMINATION** |
|---|---|
| GABRIEL E. HUNT JR. M.D. | |
| By Mr. Snyder: | 3, 149 |
| By Ms. Koroll: | 131, 158 |

**Table1 (Return to related document text)**

---

**Table2 (Return to related document text)**

**E X H I B I T S**

**GABRIEL E. HUNT JR. M.D.**

| **NUMBER** | **DESCRIPTION** | **IDENTIFIED** |
|---|---|---|
| 1 | Notice of Deposition | 4 |
| 2 | Curriculum Vitae | 5 |
| 3 | Opinion Summary | 6 |
| 4 | Hospital Records | 6 |
| 5 | August 12, 2002 | 9 |
| 6 | Statement of Janet Johnson | 9 |
| 7 | Letter to Dr. Hunt | 10 |
| 8 | Opinion Summary | 11 |
| 9 | Letter to Dr. Hunt | 14 |
| 10 | Death Certificate | 14 |

**EXHIBITS**

**GABRIEL E. HUNT JR. M.D.**

| NUMBER | DESCRIPTION | IDENTIFIED |
|---|---|---|
| 11 | Coroner's Report | 15 |
| 12 | Deposition of Dr. Roth (Condensed) | 15 |
| 13 | CT scans (retained by Plaintiff Counsel) | 15 |
| 14 | Letter to Dr. Hunt | 24 |
| 15 | Letter to Dr. Hunt | 24 |
| 16 | Letter to Dr. Hunt | 25 |
| 17 | Bill for Dr. Hunt's deposition | 27 |
| 18 | Envelope Dr. Hunt's materials mailed | 159 |

**Table2 (*Return to related document text*)**

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End of Document

# DEPOSITION OF GABRIEL E. HUNT JR., M.D.; 2005 DEPO. TRANS. LEXIS 28219

CIRCUIT COURT OF ILLINOIS, WINNEBAGO COUNTY

No. 02 L 152

December 8, 2005

**Reporter**
2005 Depo. Trans. LEXIS 19139 *; 2005 DEPO. TRANS. LEXIS 28219 **

LUTHER SPRADLING and KATHY, SPRADLING, Plaintiffs, vs. OSF HEALTHCARE SYSTEM, INC., d/b/a SAINT ANTHONY MEDICAL CENTER, and ESIS, INC., Defendants.

**Expert Name:** GABRIEL EUGENE HUNT, Jr., M.D.

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## Counsel

**[*1] [**1]** FOR THE PLAINTIFFS: LAW OFFICES OF DON M. MATEER, BY: DON M. MATEER, ESQ., Rockford, Illinois, (815) 965-7745.

FOR DEFENDANTS: HINSHAW & CULBERTSON, LLP., BY: JEFFREY S. SPEARS, ESQ., Rockford, Illinois, (815) 490-4900.

## Proceedings

4

[1]I N D E X

[2]
WITNESS: GABRIEL E. HUNT, JR., M.D.
PAGE
By Mr. Spears: 5
By Mr. Mateer: 143

[5]

[6]EXHIBITS:

[7]
DEFENDANTS' DESCRIPTION PAGE

[8]

[9]

[1]Deposition notice 7

[2]Dr. Hunt's Curriculum Vitae 7

[3]Page 2 of disclosure of opinions **[*2] [**2]**

[4]7/13/05 letter to Mr. Mateer 7

[5]3/23/2005 letter to Dr. Hunt 32

[12]

[13]QUESTIONS WITNESS INSTRUCTED NOT TO ANSWER:

[14](None)

[15]

[16]INFORMATION TO BE SUPPLIED:

[17](None)

[18]

[19]

[20]

[21]

[22]

[23]

[24]

[25]

[5]

[1]LOS ANGELES, CALIFORNIA, THURSDAY, DECEMBER 8, 2005

[2]8:46 A.M. - 12 :29 P.M.

[3]-OoO-

[4]* * *

[5]GABRIEL E. HUNT, JR., M.D.,

[6]having been duly administered an oath

[7]in accordance with CCP 2094, was

[8]examined and testified as follows:

[9]* * *

[10]EXAMINATION

[11]BY MR. SPEARS:

[12]Q. Before we get going, Doctor, one thing. I would

[13]like the assistant to run me a few copies of this letter?

[14]A. Okay.

[15](Telephone interruption.)

[16]BY MR. SPEARS:

[17]Q. Indicate she is making copies of some additional

[18]things at this point?

[19]A. I am sorry?

[20]Q. She is making some other copies?

[21]A. No. She's just getting my file. She is just

[22]getting my CV and all kinds of other stuff we might have

[23]there. She just keeps files on the billing stuff.

[24]Q. Okay. That's good.

[25]Doctor, could you please state your name for the

[6]

[1]record. **[*3] [**3]**

[2]A. Gabriel E. Hunt Jr., M.D.

[3]Q. Dr. Hunt, my name is Jeff Spears. I represent

[4]Defendant Saint Anthony's Medical Center. I'm going to

[5]ask you some questions today. It's my understanding you

[6]have been retained as an expert witness for the Plaintiff

[7]in this case; correct?

[8]A. Yes.

[9]Q. Have you given depositions before?

[10]A. Yes, I have.

[11]Q. About how many times?

[12]A. Twice.

[13]Q. Just some very basic rules. If at any time you

[14]don't understand a question, let me know, and I'll

[15]rephrase it. If you answer the question, then we'll

[16]assume that you understood it. Fair enough?

[17]A. Okay.

[18]Q. Also, you need to make your answers a verbal

[19]response, "Yes" or "No," rather Uh-uhs or nods of the

[20]head. And also let me finish my question before you

[21]begin to answer. It makes it easier for the court

[22]reporter. Okay?

[23]A. Good.

[24]Q. Doctor, you've have in front of you your file on

[25]this matter; is that correct?

[7]

[1]A. Yes, sir.

[2]Q. Now, your assistant is making a copy of a letter

[3]that Mr. Mateer sent to you, but other that one letter,

[4] **[*4] [**4]** are the documents in front of you all the materials that

[5]you have received to review in this case?

[6]A. To my knowledge, yes. My assistant is actually

[7]bringing in some other documents, but I think that that's

[8]all of the specific documents that I have for the case.

[9]Q. Okay. Why don't we wait until your assistant

[10]comes in, and we'll sort of go through what she's

[11]reviewed in the case?

[12]A. Okay.

[13]Q. I've been provided with your CV.

[14]Let's go ahead and mark these 1, 2, 3 and 4.

[15](The aforementioned documents were subsequently

[16]marked as Defendant's Exhibits 1, 2, 3, 4

[17]for identification by the Certified Shorthand

[18]Reporter and are attached hereto.)

[19]BY MR. SPEARS:

[20]Q. Doctor, you've been handed what's been marked

[21]Exhibit No. 2, which is a copy of the CV that I've been

[22]furnished for you. Is that a current CV?

[23](Knock at the door.)

[24]BY MR. SPEARS:

[25]Q. Your assistant here just handed us another CV.

[8]

[1]A. That was in with all the stuff that I told her

[2]to bring so --

[3](Telephonic interruption.)

[4]MR. MATEER: This is just his report.

[5] **[*5] [**5]** MR. SPEARS: This is off the record.

[6](Off-the-record discussion.)

[7]MR. SPEARS: Let's go ahead and go back on the

[8]record.

[9]THE WITNESS: This looks like it's current.

[10]BY MR. SPEARS:

[11]Q. Putting aside the CV now, your assistant has

[12]brought in some additional materials from your file; so I

[13]want to talk about the file.

[14]Exhibit No. 1 is a notice of your deposition,

[15]and on the second page, there is a list of documents to

[16]be provided at the time of your deposition.

[17]A. Okay.

[18]Q. The materials that you have in front of you --

[19]that's your complete file on this case?

[20]A. Yes, sir.

[21]Q. Is there anything else that you have reviewed,

[22]other than those materials that are in front of you?

[23]A. I made a literature research on the internet.

[24]Q. Do you have the result of that literature

[25]research?

[9]

[1]A. No. Everything was just done on the internet.

[2]I didn't --

[3]Q. You didn't print out anything or save anything?

[4]A. Not that I recall.

[5]Q. What sites did you research on the internet?

[6]A. That was a while ago. I think I might of just

[7] **[*6] [**6]** googled "spinal cord injury" and just kind

of went to

[8]random sites. I can't remember specifically which ones

[9]came up. Just kind of point and click in things I saw.

[10]Q. Were they all public access sites --

[11]A. Yes.

[12]Q. or did they include sites that were

[13]subscription only?

[14]A. Only public access.

[15]Q. Okay. So you probably looked up some abstracts

[16]on that line.

[17]A. Yeah. I can't remember what exactly I found. I

[18]know I didn't find much of anything at all when I

[19]actually looked.

[20]Q. What do you recall finding? First off, you

[21]googled spinal cord injury.

[22]A. I don't remember specifically, but I'm assuming

[23]that's what I did. I can't remember what exactly. It

[24]was months ago.

[25]Q. Okay; okay. What specifically were you looking

[10]

[1]for on the internet? Spinal cord injury is awfully

[2]broad.

[3]A. Right. And that's why I just kind of -- you

[4]know. And then I looked more closely at Conus Medullaris

[5]injuries.

[6]Q. How long ago was it that you did the search?

[7]A. I'm horrible with times. Maybe a couple of

[8]months ago? I can't remember specifically. **[*7] [**7]**

[9]Q. Were you specifically looking for information on

[10]spinal cord infarction or embolization to the spinal

[11]cord?

[12]A. What I was specifically looking for and did a

[13]broad search on was anything that kind of popped up on

[14]spinal cord injury, more specifically the lower spinal

[15]cord with trauma, anything vascular, tumor -- any of

[16]those things just to see what was out there.

[17]Q. Okay. Do you remember seeing anything that you

[18]thought was particularly relevant to this case?

[19]A. I didn't find any particular -- certain

[20]instances where there were any papers that said anything

[21]-- how can I say it? Everything was a little related

[22]because it was just talking about the spinal cord, spinal

[23]cord anatomy, the physiology of it, which was more

[24]important to me than a specific documented case, but just

[25]sort of -- all those things kind of helped with

[11]

[1]developing some kind of opinion as to what conceivably

[2]happened, you know. Data based on injury, tumor,

[3]whatever kind of insults you can have to the cord, and

[4]then kind of pulled on past knowledge of things that I've

[5]done in the past.

[6]Q. **[*8] [**8]** Did you consult any textbooks or any other

[7]references?

[8]A. No, no.

[9]Q. Basically, what I'm trying to pin down here is

[10]exactly what you have reviewed, what you are relying upon

[11]or using as a resource for your opinions on this case.

[12]We have material that you've reviewed that are

[13]in front of you, and you did this internet research. It

[14]sounds as if you didn't find anything in particular on

[15]the internet research that you are intending to cite or

[16]rely upon as a basis for your opinions; is that correct?

[17]A. Right. And the reason why I actually looked on

[18]the internet was because I'm not arrogant enough to think

[19]that I know everything, and so I wanted to see if there's

[20]anything out there that would change my beliefs about

[21]what I've been taught and what I've seen and learned over

[22]the years versus -- you know.

[23]Spinal cord anatomy and the way the spinal cord

[24]functions is sort of a known entity, and everyone kind of

[25]knows how it works. In training and practice, you read

[12]

[1]about things all the tile in journals, and so, I mean,

[2]I've read numerous journal articles on the spinal cord,

[3] **[*9] [**9]** spinal cord injury, all those things, but I wanted

[4]something else to draw upon and see if there's been

[5]anything found out in the last year that I hadn't been

[6]aware of, didn't know.

[7]Q. Okay. Otherwise, I want to sort of inventory

[8]what you've reviewed in this case.

[9]A. Okay.

[10]Q. What medical records have you seen?

[11]A. I'm not sure if this is a comprehensive chart

[12]or a copy of a chart, but it looks like information

[13]from medical records from Saint Anthony's Medical Center

[14]dated -- it was copied July 12, 2000. I'm not sure if

[15]this is his complete chart, but it's full of progress

[16]notes.

[17]Q. It looks like it. So you have about a

[18]one-inch-thick document there.

[19]A. Right.

[20]Q. Okay. Did you make any notations on that chart?

[21]A. Not that I remember. In looking through it now,

[22]not that I see.

[23]Q. I see a chartreuse sticky there. Is that your

[24]handwriting?

[25]A. No. The part on it that shows Don Mateer's web

[13]

[1]address is my writing. The other writing, I can't even

[2]read it.

[3]Q. Okay. I take it you didn't make any notes in

[4]connection with your **[*10] [**10]** review of this case other than

[5]what may be reflected on the margins of these various

[6]documents --

[7]A. Correct.

[8]Q. -- is that correct?

[9]A. Correct.

[10]Q. Are there any other medical records that you

[11]received in connection with your review of this case

[12]other than the chart for the Saint Anthony Medical Center

[13]admission?

[14]A. The only other thing that I received that I can

[15]recall is a set of films, MRI.

[16]Q. When did you get those?

[17]A. 3/23/05.

[18]Q. Can you tell me which studies those pertain to?

[19]A. Without physically going through all of them, it

[20]says, "Copies of the MRI of the lumbar spine," and "MRI

[21]of the C spine and reports."

[22]Q. Perhaps you can provide for me the dates of the

[23]studies?

[24]A. The dates of the studies are -- for the MRI of

[25]the lumbar spine, it's October 3rd, 2000; for the

[14]

[1]cervical spine, it's --

[2](Knock at the door.)

[3]THE WITNESS: -- there's also -- there's one of

[4]the thoracic spine also in here from 9/25/2000. There is

[5]one of the cervical spine that is dated 9/25/2000. I

[6]think that's it.

[7]BY MR. **[*11] [**11]** SPEARS:

[8]Q. At least one of the films had a sticky on it, or

[9]is there more than one?

[10]A. There is nothing.

[11]Q. Okay. What film has the sticky on it?

[12]A. Just the MRI of the lumbar spine. It's the

[13]T2-weighted image.

[14]Q. That's the 10-3-00?

[15]A. That's 10-3-2000.

[16]Q. And what cuts are on that sheet?

[17]A. It's the sagittal MRI of the lumbar spine.

[18]Q. Are there any other films that you received in

[19]this case?

[20]A. This is it.

[21]Q. Okay. Did you review all those films?

[22]A. Yes, I did.

[23]Q. And what, if any role, did those films have in

[24]your opinions in this case?

[25]A. Well, the films gave me a good picture of the

[15]

[1]cervical, thoracic, lumbar spine, and spinal cord there.

[2]On the film it actually shows an abnormality in the

[3]thoracolumbar spine within the spinal cord, and on the

[4]various different series, it actually shows changes

[5]within the spinal cord at I think -- let me tell you

[6]exactly which level. I think it's around the -- one

[7]second.

[8](Pause in the proceedings.)

[9]THE WITNESS: On this it was kind of hard to

[10] **[*12] [**12]** tell if he has actually six lumbar vertebrae or five

[11]lumbar vertebrae. If so, it's somewhere in between Til

[12]to LI, just depending on how many vertebral bodies

are on.

[13]BY MR. SPEARS:

[14]Q. Which film are you looking at?

[15]A. I'm looking at the sagittal MRI of the lumbar

[16]and thoracic spine.

[17]Q. Is that the October 3, 2000?

[18]A. Excuse me?

[19]Q. Is that the October 3, 2000 film?

[20]A. Yes. But, actually, that's not the best film to

[21]see it on. The best film to see the changes on are on

[22]the October 2000 film on the axial T2-weighted image with

[23]sections through what would be consistent with the Conus

[24]Medullaris, depending on the level, depending on how many

[25]lumbar vertebral bodies there are. And I can't really

[16]

[1]make this assessment based on this. I would need an

[2]X-ray to really see exactly what it is.

[3]But based on this, I can actually see changes in

[4]the Conus at whatever level that might be, and this is

[5]actually the T2-weighted image.

[6]Q. And what would your radiographic diagnosis or

[7]finding be, based on these films?

[8]A. There's some hyperintensity in the spinal **[*13] [**13]** cord

[9]at that level. And just looking at this, without knowing

[10]any history, if I just saw these films de novo, I would

[11]say that there is hyperintensity on the spinal cord at

[12]that level. And this would be suspicious for a tumor,

[13]and it would be suspicious for some type of vascular

[14]abnormality, which would include a stroke or infarct.

[15]It could be something that would be -- I would

[16]say it would be something that could be posttraumatic,

[17]just based on this sheet of film, not seeing the rest of

[18]the spine. Just looking at just the spinal cord, not the

[19]rest of the spinal canal.

[20]Q. In looking at the rest of the spine, you would

[21]find it not being posttraumatic?

[22]A. Looking at the rest of the spine, I don't see

[23]any disk herniation around that level. I don't see any

[24]signs of acute instability on the ligaments. If this

[25]were a remote film, there could be some acute

[17]

[1]instability, there could be some instability in the

[2]ligaments, but it would have to be gross instability,

[3]based on what I see there, because there's no narrowing

[4]of the spinal cord at that level or the spinal canal at

[5]that level. **[*14] [**14]**

[6]Q. Okay. So based on the radiographic findings and

[7]review of the records, is it fair to say that there is no

[8]evidence of any direct mechanical trauma to the cord?

[9]A. I don't think there is any evidence of spinal

[10]instability which you would need at that level in that

[11]there is no disk herniation there to say that there is

[12]damage from spinal instability.

[13]Q. And so, hence, your opinion that this is most

[14]likely due to spinal cord infarction from embolization.

[15]A. I am sorry. Can you repeat the question?

[16]Q. Okay. I've read your report in the case, and I

[17]gather it's your opinion that the spinal cord pathology

[18]that you see on these films is a result of infarction to

[19]the cord caused by embolization.

[20]A. I think that this is probably due to an infarct

[21]within the spinal cord that wasn't caused by spinal

[22]instability.

[23]Q. Are there any other findings that you have from

[24]the films that you've looked that you intend to use as a

[25]basis for your opinions in this case?

[18]

[1]A. Not that I can think of.

[2]Q. What other medical records have you reviewed in

[3]this case?

[4] **[*15] [**15]** A. I don't think there's any other medical records.

[5]I think there's just some copies of depositions with

[6]other people involved, I guess, on the case.

[7]Q. Okay. But, anyway, all the records and

[8]depositions you've received are here in front of you;

[9]correct?

[10]A. Yes, sir.

[11]Q. There is a transmittal cover sheet from

[12]Mr. Mateer's office to you dated yesterday.

[13]A. Uh-huh.

[14]Q. With the deposition of Luther Spradling dated

[15]March 23, 2005. Have you reviewed that deposition?

[16]A. I briefly thumbed through it. I didn't get an

[17]opportunity to really go through it.

[18]Q. Is there anything in that deposition testimony

[19]that you rely upon as a basis for your opinions?

[20]A. The deposition -- I can't remember if it was

[21]specifically his deposition, but I would say yes.

[22]Q. Okay. And what is it that you're relying upon

[23]in depositions?

[24]A. Just from my memory of reviewing the case -- I

[25]can't remember if it was his deposition or if it was the

[19]

[1]events as told by his wife's deposition or by the nurse's

[2]deposition -- but the thing I'm going to rely upon for

[3]this is the **[*16] [**16]** issue of what happened after his procedure

[4]and the events surrounding his fall and the events after

[5]his fall.

[6]Q. Okay. We'll get into that.

[7]A. Okay.

[8]Q. There's also a report from Ann J. Miller, R.N.

[9]I don't see a date on it, but that's Plaintiff's nursing

[10]expert. Did you review that?

[11]A. Yes, I did.

[12]Q. You're relying upon that at all as a basis for

[13]your opinions in this case?

[14]A. Yes, I am.

[15]Q. In what respect?

[16]A. The same thing. Just the course of events of

[17]what exactly happened.

[18]Q. Do you know who Nurse Miller is?

[19]A. No, sir.

[20]Q. So the chronology of events that she sets forth

[21]in her letter, you're relying upon that as part of the

[22]basis for your opinions?

[23]A. That, and also the deposition from Mr. Spradling

[24]and his wife, since I don't have the ability to actually

[25]speak to him myself.

[20]

[1]Q. And you haven't spoken to him in the case; is

[2]that correct?

[3]A. No.

[4]Q. Have you spoken to any of the people who have

[5]been involved in this case, whether doctors or nurses or

[6]other healthcare providers?

[7] **[*17] [**17]** A. The only person I've spoken to is Mr. Mateer.

[8]Q. Have you spoken to any colleagues or anybody

[9]else to discuss this case or your opinions in this case,

[10]other than Mr. Mateer?

[11]A. (No response.)

[12]Q. I've got some situations where physicians said,

[13]going to a radiologist, "What do you think about these

[14]films?" or talked to colleagues, "I got this case I'm

[15]looking at. What do you think?"

[16]A. I can't remember specifically, but I might have

[17]possibly mentioned it to my brother.

[18]Q. Is he a doctor?

[19]A. He is an orthopedic surgeon.

[20]Q. Has your brother commented about the case?

[21]A. I can't remember specifically you know, exactly

[22]what he said. We live together; so I'm sure it probably

[23]came up, but it wasn't anything useful.

[24]Q. Looks like you also received, by a transmittal

[25]letter dated yesterday, the deposition of Kathleen

[21]

[1]Spradling dated March 23, 2005. Did you review that?

[2]A. I briefly thumbed through it, yes.

[3]Q. There is another transmittal letter from

[4]Mr. Mateer dated December 3, 2005, "Enclosing the

[5]Spradlings' two transcripts from the second **[*18] [**18]** depositions,"

[6]and their nursing expert report and the document writer,

[7]which I think we've already talked about.

[8]There is another transmittal date, December 7,

[9]2005. Looks like it's copies of the same.

[10]A. I think they are.

[11]Q. Yeah, there's a January 27, 2004, deposition

[12]transcript of Mrs. Spradling; correct?

[13]A. (No response.)

[14]Q. There is a transmittal letter dated December

[15]18 --

[16]THE REPORTER: I'm sorry. What was the date?

[17]MR. SPEARS: I misspoke. Excuse me.

[18]Q. Looks like you had a copy of the records from

[19]the Neurological Clinic of Rockford. Did you review

[20]these records?

[21]A. I think I did, actually, a while ago.

[22]Q. Okay. Is there anything in those records that

[23]you're relying upon as a basis for your opinions?

[24]A. Yes.

[25]Q. What is that?

[22]

[1]A. Just neurologic exams.

[2]Q. Specifically what neurological examination are

[3]you relying upon for your opinions?

[4]A. Just the whole dictation by -- I guess it's

[5]Asner once again, because I have no way of knowing what

[6]his exam was, just the explanation of his exam. I **[*19] [**19]** guess

[7]his visit to Dr. Asner.

[8]Q. That's the August 9, 2 001?

[9]A. Yes, August 9, 2001. And then there's also

[10]neurological records from, I guess, Dr. Asner that's

[11]dated 5/22/01.

[12]Q. Other than the examination indicating that there

[13]is a spinal cord problem at a certain level, is there

[14]anything else that you're relying upon in those letters

[15]as a basis for your opinions to the cause of the spinal

[16]cord problem?

[17]A. No, not that I see.

[18]Q. Looks like you also have reports from the

[19]September 25, 2000 thoracic MRI, and you got the film for

[20]that; correct?

[21]A. Yes, sir.

[22]Q. The October 3, 2000 lumbar MRI; September 25,

[23]2000 MRI of the cervical spine -- those are the films

[24]that you have; correct?

[25]A. Correct.

[23]

[1]Q. You have Dr. Manno's deposition transcript; is

[2]that correct?

[3]A. Yes.

[4]Q. Do you know Dr. Manno?

[5]A. No, I don't.

[6]Q. Okay. And you reviewed his deposition testimony?

[7]A. Yes, I did.

[8]Q. Is there anything there that you're replying

[9]upon as a basis for your opinions?

[10]A. Just a little bit of **[*20] [**20]** his neurologic exams and

[11]just his memory of what happened, based on what his

[12]contact was. That's it.

[13]Q. You have a deposition transcript for

[14]Mr. Spradling dated January 27, 2004 and a deposition

[15]transcript for Dr. Asner. Do you know Dr. Asner?

[16]A. No, I don't.

[17]Q. Is there anything that you're relying upon in

[18]his deposition testimony as a basis for your opinions?

[19]A. Once again, just his neurologic exam and

[20]questions surrounding his visits with him.

[21]Q. It looks as if you also have a copy of the

[22]"Patient/Visitor," form at Saint Anthony Medical Center.

[23]Is there anything that you're replying upon,

[24]as a basis for your opinions from that report?

[25]A. Yes.

[24]

[1]Q. What are you relying on?

[2]A. The analysis that was given by the person who

[3]wrote this, which was, looks like, Patricia Cavanaugh

[4]that was dated 7-27-2000. Her analysis stated that the

[5]patient was weak and unable to pull himself above the

[6]commode basin and that he needed assistance and the

[7]toilet he broke while the patient was on the commode.

[8]Q. And how did those factors influence your

[9] **[*21] [**21]** opinions in this case?

[10]A. Well, it just gives an incident, which, I guess,

[11]we'll talk about later, in regards to the chronology of

[12]events that happened while he was in the hospital which I

[13]think plays a role in this case.

[14]Q. You pointed out that she indicated that the

[15]patient was weak and unable to get up off the commode.

[16]What role, if any, does that information play in

[17]your opinions?

[18]A. Well, just based on what I've read and from

[19]other depositions that explain the chronology of events

[20]that happened and what his neurological exam was and the

[21]nursing assessment before and after this.

[22]To me, it appears that he wasn't weak before he

[23]actually was on the commode, and as witnessed by this

[24]piece of paper and the deposition, he was weak after

[25]that.

[25]

[1]Q. What deposition are you referring to? Those are

[2]the Plaintiffs'.

[3]A. I can't remember specifically where, but just in

[4]my readings of the depositions and just the report I

[5]think given by the nurse's summary, there might have been

[6]something that was said that he was weak after he had the

[7]incident with the commode. **[*22] [**22]**

[8]Q. That's Nurse Miller's summary?

[9]A. Yeah. I can't remember specifically if it says

[10]that he was weak, but I just remember -- I can take a

[11]look at see if she actually says that.

[12]Q. I'm just -- that's the only summary I'm aware

[13]of. Is that the one that you're referring to?

[14]A. Right. And I'm not sure if there is another

[15]summary.

[16]Q. That's only one I saw in the materials.

[17]Have you seen the depositions of any of the

[18]nursing staff or other hospital personnel?

[19]A. Not that I can recall.

[20]Q. And, again, the materials that you have in front

[21]of you are the complete materials that you've received

[22]and reviewed in this case; is that correct?

[23]A. Yes.

[24]Q. Have you received any summaries of anyone else's

[25]testimony or of any other records?

[26]

[1]A. To my knowledge, these are all the records that

[2]I have.

[3]Q. Okay. And -- go ahead.

[4]A. Going back to the question, yeah, it does say

[5]here -- and this is what I was remembering -- I couldn't

[6]tell you specifically -- in this paragraph here about

[7]him being unable to feel his legs at all after **[*23] [**23]** he hit

[8]the floor.

[9]Q. Okay. Nurse Miller doesn't number the pages in

[10]her report, but basically, it's the paragraph beginning

[11]with, "Both Mr. And Mrs. Spradling have similar scenarios

[12]that tell what happened."

[13]That's the paragraph you're referring to?

[14]A. Correct.

[15]Q. Okay. Have you asked to see any other materials

[16]or testimony in this case for your opinions?

[17]A. No, sir.

[18]Q. Do you feel that your review of this case is

[19]complete at this point?

[20]A. Short of actually speaking to Mr. Spradling and

[21]getting the information firsthand, yes.

[22]Q. Have you asked to speak to Mr. Spradling?

[23]A. No, I haven't.

[24]Q. Do you have any other correspondence to or from

[25]Mr. Mateer's office, other than what we've gone through

27

[1]in your file?

[2]A. I think this is all the information.

[3]Q. And you prepared a report for Mr. Mateer; is

[4]that correct?

[5]A. Yes, I think I might have. It should be with

[6]the materials.

[7](Pause in the proceedings.)

[8]BY MR. SPEARS:

[9]Q. Dr. Hunt, I show it's been marked as your

[10]deposition Exhibit No. 4. It's a **[*24] [**24]** letter dated July 13,

[11]2005 from you to Mr. Mateer; is that correct?

[12]A. Yes, that appears correct.

[13]Q. Have you made any other reports or draft reports

[14]concerning your opinions in this case?

[15]A. I almost forgot I wrote this. No. I think this

[16]is it.

[17]Q. And why did you write that letter to Mr. Mateer?

[18]A. I don't remember the exact events surrounding

[19]it. This was back in July; so my memory fails me, but --

[20]no, I would be just guessing if I tried to remember

[21]exactly why I wrote this to Mr. Mateer.

[22]Q. And you had completed your review of the medical

[23]records and the deposition testimony before preparing

[24]that letter; is that correct?

[25]A. Except for the ones that I received recently.

28

[1]Q. And the ones you received just recently is the

[2]report from Miss Miller and the second depositions of the

[3]Spradlings; is that correct?

[4]A. I think that's correct.

[5]Q. Is there anything in that information which

[6]would cause you to in anyway change the opinions or add

[7]to the opinions that you have stated in your July 13,

[8]2005, letter?

[9]A. It's going to take **[*25] [**25]** a second --

[10]Q. Sure.

[11]A. -- to read over this.

[12](Pause in the proceedings.)

[13]THE WITNESS: Can you repeat the question that

[14]you asked about this report?

[15]MR. SPEARS: Could you read the question back,

[16]please.

[17](The record was read as follows:

[18]"QUESTION: Is there anything in that

[19]information which would cause you to in

[20]anyway change the opinions or add to the

[21]opinions that you have stated in your July

[22]13, 2005, letter?")

[23]THE WITNESS: On that question, I would say,

[24]yes, with one caveat; that I didn't know the exact

[25]neurologic exam for Mr. Spradling, and I think after

29

[1]reading some more -- I'm not sure if it was from his

[2]deposition or from his wife's, but I didn't know the

[3]other neurologic issues that he had that happened after

[4]the fall.

[5]This consisted of, as best as I can ascertain,

[6]numbness in his lower extremities; the weakness, I guess,

[7]it appeared had resolved, but he has problems with

[8]feeling his feet, and I guess some central changes that

[9]go more up his legs, which these are things that actually

[10]happened after his fall, and this is **[*26] [**26]** something that I

[11]didn't know at the time of writing this letter to

[12]Mr. Mateer.

[13]BY MR. SPEARS:

[14]Q. And that's information that you have gleaned

[15]from either the report of Nurse Miller or the second

[16]depositions of the Spradlings?

[17]A. Yes.

[18]Q. Other than that, there is nothing that you would

[19]change about your July 13, 2005, report?

[20]A. Not that I see.

[21]Q. When you wrote that report, were you trying to

[22]be thorough and accurate in terms of describing your

[23]opinions and the basis for your opinions?

[24]A. I think I was trying to -- repeat that question,

[25]please.

30

[1]MR. SPEARS: Read it back, please.

[2](The previous question was read.)

[3]THE WITNESS: Yes. Basically, what I was trying

[4]to do -- and I can't remember what conversation I had

[5]with Mr. Mateer, because we basically sort of

[6]communicated from assistant to assistant.

[7]So I think this was one way to communicate

[8]acutely what my opinion was, based on all of the

[9]information that I had received from the depositions,

[10]from the films, and what I thought could possibly be

[11]causing his problems.

[12] **[*27] [**27]** BY MR. SPEARS:

[13]Q. Okay. So you were trying to be thorough and

[14]accurate in giving this report to Mr. Mateer; is that

[15]correct?

[16]A. Yes, based on information I had received so far.

[17]Q. And this letter reflects your opinions today; is

[18]that correct?

[19]A. That's correct with the caveat that I spoke

[20]about earlier regarding his other neurologic findings,

[21]which I was unaware of.

[22]Q. And how did those other neurologic findings

[23]influence your opinion in this case?

[24]A. It influences my opinions from the standpoint

[25]that, before he actually had this episode --

[31]

[1](Telephone interruption.)

[2]MR. SPEARS: Can you take that?

[3]THE WITNESS: -- before he had this episode or

[4]before he fell after having a procedure, there were no

[5]complaints, as far as I can see, of leg weakness,

[6]anything going around in his lower extremities, no

[7]problems with walking, and no problems with voiding, per

[8]his testimony.

[9]After he fell, it's been documented that he had

[10]weakness in his legs, he had sensory problems, he also

[11]developed urinary problems and problems with erectile

[12]dysfunction, **[*28] [**28]** or impotence, and these were things that

[13]weren't present prior to his fall.

[14]Now, looking at things separately, the urinary

[15]dysfunction and then the other neurologic issues that he

[16]has, putting the urine dysfunction aside, the problems

[17]that he has with sensory function in his legs and the

[18]weakness which did resolve, falling from that level,

[19]whatever height that was, unless there was some spinal

[20]instability, it should not cause him to have those

[21]symptoms that persist.

[22]So I would venture to say that he had it because

[23]of the fall based what's on his spinal cord. And that

[24]would give me reason to believe that -- like I said,

[25]putting the urinary issues aside -- the fact that before

[32]

[1]he fell he didn't have any of these issues even

[2]post-angio, and then after he fell, immediately when he

[3]fell, it's been documented that he had leg weakness,

[4]numbness and tingling, and problems with his feet, that

[5]to this day, I'm not sure if they've resolved or not.

[6]I don't know the status of him at this current

[7]moment in time, but that does show other neurologic

[8]injury that happened at that time, even **[*29] [**29]** though there was

[9]no spinal instability, which leads me to believe that the

[10]things that we're seeing in his spinal cord happened at

[11]that time because that's when he had multiple neurologic

[12]deficits.

[13]BY MR. SPEARS:

[14]Q. Doctor, showing you what's marked as Exhibit

[15]No. 5, the March 23, 2005, letter from Mr. Mateer to you,

[16]does that letter reflect the initial contact between

[17]Mr. Mateer and you in this file?

[18](The aforementioned document was subsequently

[19]marked as Defendant's Exhibit No. 5 for

[20]identification by the Certified Shorthand

[21]Reporter and is attached hereto.)

[22]THE WITNESS: It actually looks -- from reading

[23]the first sentence, it looks like it's a follow-up to

[24]maybe a discussion we might have had. I can't remember

[25]if I actually had a discussion with him on the phone or

33

[1]if it was just set through our assistants, but I actually

[2]had to agree to review it; so I had to find out a little

[3]bit about the case before agreeing to review it.

[4]So I would say this could possibly be a second

[5]communication or something subsequent.

[6]BY MR. SPEARS:

[7]Q. Was it the first written **[*30] [**30]** communication?

[8]A. If this is the latest or earliest in my file, I

[9]would have to say, "Yes." I don't know of any other

[10]communication.

[11]Q. Are you relying upon the information contained

[12]in this letter, the factual information contained in this

[13]letter, in any way as a basis for your opinions?

[14]A. If you could just give me a moment to read

[15]over it?

[16]Q. Sure.

[17](Pause in the proceedings.)

[18]THE WITNESS: Can you repeat the question,

[19]please.

[20]BY MR. SPEARS:

[21]Q. Sure. I'll rephrase it.

[22]Exhibit No. 5, which is Mr. Mateer's letter

[23]dated March 23, 2005 letter to you, contains a

[24]description of some factual information in the case.

[25]Are you relying upon his statement of facts in

[34]

[1]this letter in any way as a basis for your opinions?

[2]A. Yes.

[3]Q. In what respect?

[4]A. Just the fact that he actually fell. The other

[5]issues, referring to the other physicians that actually

[6]looked at the case and gave the deposition on the case --

[7]actually, my opinion is a little different from theirs;

[8]so it doesn't really depend on their opinion.

[9]The only **[*31] [**31]** thing I kind of gleaned from this was

[10]the fact that he did fall, which has been stated numerous

[11]times in other depositions. I don't know if this is the

[12]only place where this is written or not, but the issue

[13]about him voiding where it says -- in the third paragraph

[14]from the bottom, it says, (reading):

[15]This matter has been reviewed by a nurse as

[16]nursing care --

[17]THE REPORTER: As nursing care what?

[18]THE WITNESS: I am sorry. (Reading):

[19]-- as to the nursing care that Luther

[20]received at the Saint Anthony Medical

[21]Center. Her review of the nursing notes

[22]indicate that Luther would have voided on

[23]his own after the stent procedure and before

[24]the fall on the commode.

[25]Mrs. Spradling has testified that indeed --

35

[1]THE REPORTER: Slow down, please.

[2]BY MR. SPEARS:

[3]Q. When you're reading things -- we all tend to

[4]read faster, and her fingers aren't that fast.

[5]A. (Reading):

[6]-- after the stent procedure and before the

[7]fall on the commode, Mrs. Spradling has

[8]testified that indeed Luther did void

[9]without difficulty between the stent

[10]procedure and the fall on the commode. **[*32] [**32]**

[11]So I can't remember specifically in either

[12]Mrs. Spradling's deposition or Mr. Spradling's deposition

[13]if, indeed, he alluded to that -- the fact that he did

[14]void or not, or I don't know if it's just from this that

[15]I remember that, but that was part of what I remember

[16]from reviewing the case.

[17]Q. Okay. Why is it important for your opinions as

[18]to whether or not the patient had voided before the fall?

[19]A. The reason why it's important for my opinion --

[20]and like I said, there's two separate things: Urinating

[21]and other neurologic deficits -- after a person has any

[22]kind of procedure, they can have some urinary problems.

[23]The fact that -- if he voided after having the

[24]procedure done means that he could void spontaneously on

[25]his own, and if he was voiding spontaneously on his own,

36

[1]then that means that his bladder should have been okay.

[2]Usually -- I don't claim to be an expert on

[3]cardiac angiograms and aortic angiography but -- and I

[4]can't quote you the exact numbers where you see bladder

[5]problems or deficits post-angio, but the fact that there

[6]is no documentation that I saw of him **[*33] [**33]** voiding or not

[7]voiding in some of the time period between when he had a

[8]procedure and when he fell, there is actually

[9]documentation of straight cathetering him at some point,

[10]but there is conflicting documentation stating that he

[11]was actually able to void on his own.

[12]The fact that after he actually has the fall, he

[13]was able to void on his own, which I think functionally

[14]is the most difficult thing to deal with, the fact still

[15]remains that even more so than that, he still has other

[16]neurologic deficits that came on board after he actually

[17]has the fall or that were recognized after he had the

[18]fall.

[19]There's no documentation of things I mentioned

[20]earlier with leg weakness, numbness and tingling, and

[21]those issues. And all of those issues that he has --

[22]like I said, I'm not sure if he still has them at this

[23]current time, but those can be explained by the lesion

[24]that I see actually on the films.

[25]Q. When were you first contacted by Mr. Mateer's
37

[1]office in this case?

[2]A. I don't remember the exact date, but it would

[3]have to have been sometime around March, before this

[4]Exhibit **[*34] [**34]** No. 5.

[5]Q. Do you know how it was that he got your name to

[6]review this case?

[7]A. I have no idea.

[8]Q. Have you ever done expert-witness work before?

[9]A. No, I haven't.

[10]Q. You said that you had given depositions before;

[11]is that correct?

[12]A. Yes.

[13]Q. How many times?

[14]A. Twice.

[15]Q. Was that always as a treating physician?

[16]A. One of them was when I was in residency. It was

[17]a deposition based on one of my attendings that actually

[18]got thrown out because the case was thrown out.

[19]Q. Were you named as a Defendant in that lawsuit?

[20]A. No, I don't think I was.

[21]Q. What did that case involve? Just briefly.

[22]A. It just involved a woman that had a urinary

[23]tract infection.

[24]Q. What was the claimed injury?

[25]A. It was a patient that -- I don't know. Is that
38

[1]doctor-patient confidentiality? Is that something that's

[2]actually legal to even talk about? I guess if I don't

[3]say the name, it doesn't matter.

[4]Q. I don't care about the name.

[5]A. Okay.

[6]Q. It's a public document.

[7]A. Okay. I wasn't sure. **[*35] [**35]**

[8]No. Just a woman that was actually transferred

[9]into a hospital for an MRI, and she actually had some

[10]studies that were done -- urinary analysis and cultures

[11]and some other labs that was done.

[12]She stayed at our hospital for probably about 12

[13]to 18 hours just to get the MRI, and the thought was that

[14]she did actually had a urinary tract infection, which the

[15]claim was that we didn't pick it up. We were just,

[16]basically, bringing the patient over for an MRI. So we

[17]were responsible for her while she was there but --

[18]Q. That's good enough. It has nothing to do with

[19]the issues in this case.

[20]A. No.

[21]Q. The second deposition that you gave, under which

[22]circumstances did you do that?

[23]A. It was kind ridiculous. It was a deposition

[24]because my roommate actually was hit by another driver,

[25]and he was actually suing for damages. They deposed me

39

[1]for about three hours to verify he actually lived with

[2]me, which was quite an experience.

[3]Q. It gave you a good taste of the legal profession;

[4]right?

[5]A. (Nodding head in an up-and-down motion.)

[6]Q. Those were the **[*36] [**36]** only depositions that were given;

[7]is that correct?

[8]A. Yes.

[9]Q. Have you ever been named as a Defendant in a

[10]lawsuit? And this is where you can knock on wood.

[11]A. No. But I have a question.

[12]Q. Sure.

[13]A. I was actually sued for paternity. Does that

[14]count?

[15]Q. I don't care.

[16]A. Okay.

[17]MR. MATEER: You strike that out of the

[18]transcript, too, if you don't care.

[19]MR. SPEARS: Well, I don't care to follow-up on it.

[20]Q. Have you ever reviewed any cases before to give

[21]opinions to an attorney?

[22]A. I've talked to attorneys about cases. I have

[23]attorneys that are friends that would call and ask me my

[24]thoughts on cases.

[25]Q. Have you ever been sent records to formally

40

[1]review, and you got paid for it?

[2]A. No. Actually, I take that back. Yes, I had

[3]been. One, which I'm actually looking at now.

[4]Q. Okay.

[5]A. It's a current case.

[6]Q. Okay. I take it it's a case that you haven't

[7]given a deposition on; is that correct?

[8]A. No, I haven't.

[9]Q. Do you know whether your opinions have been

[10]disclosed to the **[*37] [**37]** opposing party?

[11]A. I would assume they have been. I'm not 100

[12]percent sure.

[13]Q. At this point -- I don't want to know any names

[14]or anything -- but in two sentences, what's the case

[15]about?

[16]A. I'm not really through going over it yet, but

[17]it's about some gentleman that had cerebral hemorrhage,

[18]and the question was, "Was he treated appropriately?" I

[19]think he ended up -- Did he die? Yes, he did die. It

[20]was a question whether he was treated appropriately.

[21]Q. Are you there on the case for the Plaintiff's

[22]side or the Defense side?

[23]A. For Plaintiff's side.

[24]Q. To your knowledge, have you ever been listed

[25]with any service as someone who would provide expert

[41]

[1]witness services?

[2]A. No.

[3]Q. I take it you probably haven't advertised the

[4]service either?

[5]A. No.

[6]Q. Okay. What are you charging Mr. Mateer in this

[7]case?

[8]A. It should be documented.

[9]Q. Your assistant provided me with a few things

[10]here. Looks like there is an invoice dated December 2,

[11]2005.

[12]A. It says that "retainer fee for one" -- a

[13]retainer fee for one **[*38] [**38]** hour, time spent reviewing the

[14]records was $ 750, and then additional time spent per hour

[15]was $ 400 per hour.

[16]Q. Okay. So I take it that your initial fee is

[17]$ 750 for the first hour spent on the case?

[18]A. Yes. It was a retainer to kind of go over

[19]things and just if there's going to be more time spent.

[20]Q. So, basically, your base rate is $ 400 an hour

[21]for reviewing?

[22]A. Right.

[23]Q. In terms of giving your deposition testimony

[24]today, is the rate any different?

[25]A. For deposition I charge $ 1000 an hour.

[42]

[1]Q. And if you were to testify at trial on this

[2]case, what would you charge?

[3]A. But if you make me testify here, probably like

[4]five or 10,000 an hour. No. I'm just joking. Sorry

[5]about that.

[6]Q. Starting to break out in a sweat there.

[7]A. About the same.

[8]Q. $ 1000 an hour?

[9]A. I've never been actually in court and testified

[10]in this respect. Actually, I have testified in court,

[11]but not as an expert witness; so in that respect, it

[12]would probably be negotiable.

[13]Q. How much time have you spent on this case?

[14]A. More **[*39] [**39]** than I billed for. It's kind of hard to

[15]say, because, I mean, if I'm looking over the charts or

[16]if I'm on the internet or something, I might be sitting

[17]there reviewing while I'm watching TV, or something. I

[18]might be sitting there four hours, or something.

[19]And, you know, to say how much time I actually

[20]spent looking at each record -- that's why I wouldn't

[21]charge for that time if it's not just me sitting at my

[22]desk looking at it for a good amount of time. But

[23]looking over things, trying to decipher the writing, and

[24]things like that.

[25]Q. Now, your December 2 invoice reflects, looks

43

[1]like, 13 hours as of the date of that invoice. Is that

[2]accurate?

[3]A. I probably spent a lot more than that, but

[4]that's what I billed for.

[5]Q. And how much additional time have you spent on

[6]this case, since that invoice, up to the start of the

[7]deposition today?

[8]A. I have no idea. I've had the records since

[9]March; so I'm sure -- I'm not sure if it's March since

[10]that correspondence here. I can't remember specifically

[11]when I got the records.

[12]Actually, yeah, 3/23/05 is when I got them. **[*40] [**40]**

[13]Q. Well, looks like this invoice is for a total

[14]amount of $ 6,500, and it looks like it's through the

[15]conclusion of the deposition today; is that correct?

[16]A. Yeah, if that's what's documented.

[17]Q. Okay. Have you been paid for any of this at

[18]this point in time?

[19]A. Yes, I have.

[20]Q. The full amount on this?

[21]A. With the understanding that if the hours don't

[22]add up, Mr. Mateer will be reimbursed.

[23]Q. I want to return to your CV, Doctor. Who is

[24]your current employer?

[25]A. Cedars-Sinai Medical Center.

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[1]Q. How many other neurosurgeons does Cedars-Sinai

[2]employ?

[3]A. In my group, which is the Neurosurgical

[4]Institute here, there's nine neurosurgeons. I'm not sure

[5]how many neurosurgeons are on -- actually, I guess it

[6]would be nine on faculty. There are other neurosurgeon

[7]that have privileges here, but to the best of my

[8]knowledge, it's just the nine of us that are actually

[9]faculty neurosurgeons here.

[10]Q. In terms of your seniority within the group,

[11]where do you stand?

[12]A. I'm one of the junior guys.

[13]Q. Is anyone else in the group **[*41] [**41]** more junior than

[14]you?

[15]A. There's guys that came in the same time I did;

[16]so we're all sort of junior guys.

[17]Q. Is there any sort of a division of specialty or

[18]special interest within the neurosurgical group?

[19]A. Yes.

[20]Q. And how's that divided out? Where do you fit in

[21]that scheme?

[22]A. My area of specialty is complex spine, vascular,

[23]and scull-base surgery.

[24]Q. Vascular and what?

[25]A. Scull-base surgery.

[45]

[1]Q. "Scull-base surgery."

[2]A. Things are divided up in our group. Even though

[3]everybody does a little bit of everything, my area of

[4]specialty within the group is scull-base surgery, doing

[5]scull-base brain tumors and complex spine and spinal cord

[6]injuries.

[7](Telephonic interruption.)

[8]THE WITNESS: Other guys in the group actually

[9]do take care of spinal problems. One guy does mostly

[10]vascular and AVM's; another guy does mainly brain tumors,

[11]and they're divided like that.

[12]BY MR. SPEARS:

[13]Q. In terms of vascular, you're talking about

[14]AVM's?

[15]A. AVM's and aneurysms.

[16]Q. Are those primarily intercranial?

[17] **[*42] [**42]** A. Just normally they occur more intercranial than

[18]interspinal. It's very rare that you see vascular

[19]abnormalities in the spine.

[20]Q. How much of your practice is devoted towards

[21]spinal cord problems?

[22]A. I would say there's not a high occurrence of,

[23]quote-unquote, spinal cord problems, meaning intrinsic

[24]tumors, syrinxes, spelled S-y-r-i-n-x, or other intrinsic

[25]pathology of the spine, spinal cord.

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[1]But in my area of specialty, probably about 70

[2]to 80 percent of my practice is dealing with spinal

[3]complex, spinal problems, which includes adult scoliosis

[4]deformity, spinal cord tumors, any -- basically, anything

[5]that goes on the spinal cord and dealing with spinal

[6]trauma.

[7]Q. Are you on the trauma service at the hospital?

[8]A. Well, basically, how things work here is that

[9]in my group we take calls, and so we alternate with our

[10]counterparts from spinal disorders here. We're also part

[11]of intaking call for spinal trauma.

[12]Q. So you respond to patients coming in through the

[13]emergency department?

[14]A. Correct.

[15]Q. Are you Board Certified?

[16]A. No, sir. **[*43] [**43]**

[17]Q. And where are you in the Board Certification

[18]process?

[19]A. Basically, after you finish your training

[20]program, you have up to five years to take your oral

[21]Boards. Everyone takes written Boards, and you actually

[22]have to take your written boards, which is the biggest

[23]part of it, before you can finish your training program.

[24]So that was taken and passed; and, you know,

[25]it's not an issue. You just collect cases after your

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[1]training program for five years, or you collect them for

[2]a year and then you apply to actually take the oral

[3]Boards, which is sort of the second part of your
[4]certification.
[5]Q. Are you currently eligible?
[6]A. Yes.
[7]Q. How long have you been eligible to take the
[8]Boards?
[9]A. I'm eligible now. I'm only a year and a half
[10]out of training.
[11]Q. Are you scheduled to take the orals, or have you
[12]applied to take the orals?
[13]A. No, I haven't.
[14]Q. Do you have any plans on when you intend to do
[15]that?
[16]A. I have to check the schedule to see exactly what
[17]time they're given, but it will be next year, because
[18]they're only **[*44] [**44]** given certain times out of the year.
[19]Q. Did you pass the written on the first attempt?
[20]A. The first time, I took it for credit. Basically
[21]what you do is, when you start as a second year, some
[22]programs allow you to take it for practice just for
[23]self-assessment every year until you're ready to take it
[24]for credit, which is -- whenever you take it for credit,
[25]you take it, you don't have to take it anymore. Some
48
[1]programs don't allow you to take it at all until you're
[2]5th and 6th year in training.
[3]Q. So you took basically a practice examination?
[4]A. It was the same test, but it's -- no one expects
[5]you to pass it in your second year because you don't know
[6]it. So I actually passed it on my -- took it for credit
[7]in my fifth year, I think it was.
[8]Q. Your practice exam -- did you pass it?
[9]A. No.
[10]Q. Is everyone else in your group Board Certified?
[11]A. No.
[12]Q. How many others are still pending certification?
[13]A. Two others, and those are only the other junior
[14]guys that are the same year as I'm.
[15]Q. You completed your residency in 2004; is that
[16] **[*45] [**45]** correct?
[17]A. Yes, sir.
[18]Q. Is that in June?
[19]A. Yes, sir.
[20]Q. And that was at Thomas Jefferson University
[21]Hospital in Philadelphia; right?
[22]A. Yes.
[23]Q. Was there an attending that you worked under or
[24]a director of the program there?
[25]A. Yes, it was William Buccheit, B-u-c-c-h-e-i-t.
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[1]Q. What was his position?
[2]A. He was the chairman of the department. Do you
[3]want more specifically in regards to the training I'm
[4]doing now, or just overall in regards to who is
[5]responsible for the department?
[6]Q. Just in terms of who was responsible for the
[7]department when you were in the residency program.
[8]A. All right.

[9]Q. Does Cedars-Sinai have a department of

[10]neurosurgery?

[11]A. You know what? I always get mixed up whether

[12]it's department or division. I think it's just Division

[13]of Neurosurgery. Or is it department? There's a surgery

[14]department, but a neurosurgical division.

[15]Q. Who is the Chair?

[16]A. Of my program here or the surgery department?

[17]Q. Well, whatever the neurosurgical section is.

[18]A. Keith Black.

[19] **[*46] [**46]** Q. And is he also the top dog, if you will, of your

[20]group here?

[21]A. Yes.

[22]Q. Do you hold any administrative positions at

[23]Cedars-Sinai? Any hospital committees or --

[24]A. I am a member of the Ethics Committee.

[25]Q. Do you have any titles within the department or

50

[1]the section?

[2]A. No.

[3]Q. Since completion of your residency, have you

[4]held privileges at any hospitals other than Cedars-Sinai?

[5]A. At Olympia Medical Center, which is right down

[6]the street.

[7]Q. Is that General Hospital?

[8]A. Yes.

[9]Q. How large a hospital is that?

[10]A. I'm not sure of the bed size. It's a small

[11]hospital.

[12]Q. Okay. Any other hospitals that you've held

[13]privileges at since completion of your residency?

[14]A. No.

[15]Q. Have you ever had any disciplinary action taken

[16]against any of your hospital privileges at any time?

[17]A. Suspension for not dictating? No.

[18]Q. Apart from medical records of --

[19]A. No.

[20]Q. communication, which probably 90 percent of

[21]physicians get at some point in time.

[22]A. No, I haven't.

[23]Q. And I take **[*47] [**47]** it you're licensed to practice in the

[24]State of California, as well as Pennsylvania; is that

[25]correct?

[51]

[1]A. I didn't renew my license in Philadelphia -- or

[2]in Pennsylvania.

[3]Q. Have you ever had any disciplinary action taken

[4]against any of your state licenses?

[5]A. No.

[6]Q. This is routine question. Have you ever been

[7]convicted of a crime?

[8]A. Not to my knowledge.

[9]Q. I see that in your CV there are several

[10]references to research, fellowships, and the like.

[11]What, if any research, have you been involved

[12]in, either during your medical school internship

[13]residency or since going into practice?

[14]A. You want me to go over everything?

[15]Q. Well, there are some that are listed in your CV.

[16]A. I can kind of tell you in a nutshell kind of

[17]what I've done.

[18]Q. Sure.

[19]A. We can start at the beginning of where the

[20]research was. Basically that was from '96 to '98. This

[21]was working with my director here, Keith Black, over when

[22]we were at UCLA during my medical school.

[23]He was looking at a brain tumor model, looking

[24]at how he could increase chemotherapeutic **[*48] [**48]** efficacy in

[25]brain tumors. That was also what I was doing in 1995

[52]

[1]and '96, which, is a little further down.

[2]1991 to 1993 was when I was in undergraduate,

[3]and that was just looking at muscle physiology and

[4]effects of muscle injury.

[5]Before that I was doing some research, looking

[6]at mechanisms for fluid retention in sheep. Most

[7]recently, I just did -- I wrote a paper, which is right

[8]down under "Publications," which wasn't, per say,

[9]research. The way I like to think of is sort of like

[10]bench research.

[11]It was a comprehensive review and paper which

[12]was published in Neurosurgical Focus on Conus Medullaris

[13]and Cauda Equina syndrome secondary to traumatic injury,

[14]and just going over the management principles of that.

[15]So, per say, people would say that was research,

[16]but in regards to kind of how I perceived research, that

[17]wasn't really research. That was more academic than it

[18]was bench research. It wasn't really anything, any

[19]models, any animal models or anything like that. It was

[20]just --

[21]Q. Studies of patients.

[22]A. No. Just literature review, going through

[23] **[*49] [**49]** experiences at our spinal cord injury center, which I

[24]guess involve patients, but there is no actual numbers

[25]from those patients that we had.

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[1]At Thomas Jefferson University, we had a

[2]comprehensive spinal cord injury center that treated

[3]the -- what area was it? It was in Pennsylvania

[4]Washington, Maryland, and some of New York. That was the

[5]training I had in spinal cord injury as a resident.

[6]Q. Have you done any other research or writing on

[7]the subject of spinal cord injury?

[8]A. No, I haven't.

[9]Q. The article that you mention that is published

[10]in --

[11]Was it Neurosurgery Focus?

[12]A. Yes.

[13]Q. -- you're listed as lead author in that; is that

[14]correct?

[15]A. I don't know if I'm lead author on there or not

[16]but --

[17]Q. Okay.

[18]A. -- in writing papers -- it's kind of funny

[19]because it depends on who you talk to. Sometimes people

[20]say the person at the very end is the person that's sort

[21]of attending and sort of pioneering things, which is the

[22]person that usually doesn't do all the work.

[23]I can't remember if my name was first on paper

[24]or second, **[*50] [**50]** but I actually wrote the paper in conjunction

[25]with one of my now colleague. I don't know if he's

54

[1]listed first or second.

[2]Q. Was that written while you were a resident?

[3]A. Yes, it was.

[4]Q. And who was the senior physician on this project?

[5]A. Who proofread what I wrote?

[6]Q. Right.

[7]A. Dr. Harrop and Dr. Bakero (phonetic).

[8]Q. Is Neurosurgery Focus a peer-review journal?

[9]A. I think it is; I think it is.

[10]Q. Is there anything in that article that you

[11]believe is relevant to this case?

[12]A. I can't say specifically what's written there.

[13]If someone read it, would they be able to apply something

[14]to this case? But just from -- I can't remember

[15]specifically what is exactly said on every page, but

[16]definitely the knowledge that I have from training, the

[17]knowledge that I have from dealing with spinal cord

[18]injury patients and also information gleaned from writing

[19]this paper definitely are a source of me making my

[20]recommendations for this case.

[21]Q. The research that you did for that paper, that

[22]included investigating the medical literature, traumatic

[23] **[*51] [**51]** spinal cord injuries; is that correct?

[24]A. The medical literature, neurosurgery and

[25]orthopedic surgery, spine, books and literature that was

55

[1]out there. It was a pretty comprehensive search of all

[2]literature.

[3]Q. That dealt with traumatic injuries.

[4]Did any of your research come across any

[5]articles or other literature on spinal cord infarctions

[6]due to embolization?

[7]A. Not that I can remember. I'm sure that in

[8]looking up those things -- this paper is focused more on

[9]the rhacolumbar (phonetic) injuries and the effect that

[10]it did have on the Conus and the Cauda Equina, which is a

[11]whole entity of itself.

[12]So in that respect, that played a role in

[13]looking at just the Conus Medullaris, but I can't

[14]remember specifically really being concerned at that

[15]point in time about embolization from other problems.

[16]Q. Have you done any other research, writing, or

[17]speaking on spinal cord injury?

[18]A. No.

[19]Q. Have you ever --

[20]A. Actually, let me look in here.

[21]The only other thing that I've talked about are

[22]what I've given in my presentations. We have Grand

[23] **[*52] [**52]** Rounds when I was in residency and -- just on spinal cord

[24]tumors and also just on spinal metastases or fractures;

[25]so a couple of spine talks and one on the spinal cord,

[56]

[1]but nothing on spinal cord injury specifically.

[2]Q. Your CV lists some scholarships.

[3]A. Uh-huh.

[4]Q. What did you have to do to qualify for any of

[5]the scholarships that are listed on here? Are any of

[6]them academic based?

[7]A. The ones from '96 to '98 -- actually, all

[8]of them are academic-based, and some are academic and

[9]need-based, but they're all given based on exams and

[10]accomplishments. Most of those are in medical school.

[11]Q. Have you received any other honors or awards in

[12]connection with your education and training, other than

[13]those listed on your CV? Looks like the third page.

[14]A. Under my education, there's two fellowships that

[15]I was awarded. One is the Howard Hughes Research

[16]Fellowship, which was for a year; the another one was

[17]Association of Academic Minority Physician Research

[18]Fellowship.

[19]Howard Hughes Fellowship was a pretty

[20]prestigious one. That was given based on academics, the

[21] **[*53] [**53]** extent of the research proposal, and what your plans were

[22]for the future, and that was for a year, and it was

[23]given, I think, to maybe like 30 people across the

[24]country.

[25]And the other one. Association of Academic

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[1]Minority Physicians, I think was given to five people

[2]that year, and I was one of them. Other than that,

[3]besides honors and awards that are listed there, I think

[4]that's probably pretty current.

[5]Q. Did you receive any honors or awards in

[6]connection with your residency?

[7]A. I don't think they gave any. They gave me my

[8]certification that I done. That was good enough.

[9]Q. No at-a-boys (phonetic) in that program.

[10]A. No. The neurosurgical program has only one or

[11]two people a year; so everyone has to be a chief resident

[12]before they're done, whereas in medical programs for

[13]internal medicine, they always give one chief -- an award

[14]for being the chief, and that's sort of a big award, but

[15]each neurosurgeon has to be a chief resident before

[16]they're finished.

[17]Q. Have you had any teaching responsibilities?

[18]A. Teaching the residents under me? Five years, I

[19] **[*54] [**54]** would say.

[20]Q. Since completion of your residency program, have

[21]you been involved in teaching?

[22]A. Yes. General surgery residents here that take

[23]care of patients, teaching them. I've given a grant

[24]presentation to the general surgery residents and also to

[25]nursing students and the emergency department physicians

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[1]here.

[2]Q. Do you hold any academic appointments?

[3]A. Well, here at Cedars, the place is sort of

[4]somewhat academic and private; so we have a little bit of

[5]dichotomy in our appointment, so to speak. We don't have

[6]professorship or assistant professor or anything like at

[7]this point, but we are expected to do research and things

[8]like that.

[9]Q. Do you have any current research pending?

[10]A. Yes, I do.

[11]Q. On what subjects?

[12]A. I'm doing some -- I'm actually in the process of

[13]doing some research on -- helping with the research on

[14]brain metastases, and it stems from developing -- my boss

[15]is actually developing a probe to treat brain metastasis

[16]from cancer.

[17]Q. Any other research projects that you have in the

[18]works or planned?

[19]A. There **[*55] [**55]** are a couple that we're looking to get

[20]some grant money from, and this is with my brother. My

[21]brother is an orthopedic spine surgeon. He is actually

[22]the director of spine and trauma here at Cedars; so we're

[23]going to be doing some work on spine trauma in the

[24]biomechanics lab here.

[25]Q. What type of research?

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[1]A. Just research looking at mobility of the

[2]thoracolumbar spine and the effects of trauma and just

[3]looking at different ways to surgically treat those

[4]problems.

[5]Q. What's your brother's name?

[6]A. Lan L. Hunt.

[7]Q. And, of course, in your practice you've had

[8]experience with spinal cord injuries; correct?

[9]A. Yes, sir.

[10]Q. You do surgery on a spine; is that correct?

[11]A. Yes, sir.

[12]Q. It includes surgery for tumors, malignant and

[13]benign; is that correct?

[14]A. Yes.

[15]Q. Are you involved in any surgical procedures for

[16]spinal stabilization?

[17]A. Yes.

[18]Q. And what role do you have in those procedures?

[19]A. I give them. 20 Q. Okay.

[21]A. My brother and I actually work together on all

[22]of our cases. It provides an interesting **[*56] [**56]** twist, because

[23]surgeons (sic) and nurses don't get along. They kind of

[24]compete.

[25]He is actually very well trained in pediatric

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[1]and adult scoliosis and deformity, and I'm well trained

[2]in everything else. And so I've had everything else with

[3]regards to spinal instrumentation, and those things.

[4]I've had experience in training, working with guys at

[5]Jefferson doing scoliosis. He has a more expansive

[6]training. He did a year fellowship just on adult

[7]scoliosis and deformity.

[8]So, other than that, any part of the spine

[9]that's being instrumented, all of those procedures, I do

[10]personally. We do them together because two brains are

[11]better than one.

[12]Q. Tell me what experience have you had with spinal

[13]cord infarction?

[14]A. It's kind of a hard ctuestion to answer, because

[15]with any kind of spinal instability, whether it's the

[16]cervical or thoracic spine, realistically, it depends on

[17]who you talk to.

[18]People think that everything in the spinal cord

[19]is vascular when it comes to having problems with it; so

[20]with any type of trauma you see, you'll see changes

[21]within the spinal **[*57] [**57]** cord that are consistent with damage to

[22]the spinal cord and --

[23]THE REPORTER: And the what?

[24]THE WITNESS: -- and vascular damage to it. So,

[25]in essence, if you had a cervical disk herniation that

[61]

[1]presses on your spinal cord and you see changes in the

[2]spinal cord, you would say that -- you could say that

[3]that's an infarct in the spinal cord, even though we

[4]don't talk like that.

[5]We say, "There is damage to the spinal cord

[6]because no one knows exactly what the process is going

[7]on in the spinal cord at that time, but it looks the same

[8]on the MRI, and that's why, when you have any kind of

[9]instability or trauma across from a disk herniation, you

[10]have significant change in the spinal cord. It's got to

[11]be damaged and probably secondary to compromised blood

[12]supply in that area.

[13]BY MR. SPEARS:

[14]Q. Let's narrow it down, because I gather from your

[15]report -- and correct me if I am wrong -- that your

[16]opinion of the mechanism of the spinal cord injury here

[17]is an infarction due to embolization rather than due

to

[18]any compression on the cord; is that correct?

[19]A. If you look at **[*58] [**58]** the films, there is no disk

[20]herniation there. There doesn't appear to be any spinal

[21]instability, just based on the films that I see, which

[22]would lead you to believe that the changes that we see in

[23]the spinal cord aren't from spinal instability and actual

[24]physical contact of the spinal cord with the rest of the

[25]spinal column. That should conceivably be the reason why

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[1]you would have that if it were traumatic.

[2]Q. And, just so that I'm correct, it's your

[3]opinion,

[4]to a reasonable degree of medical certainty in this case,

[5]that Mr. Spradling's spinal cord condition is due to

[6]infarction from embolization rather than any compression

[7]on the cord; is that correct?

[8]A. Well, looking at the films -- okay? -- like I

[9]said, I don't think that there is any instability, and

[10]looking at the depositions from what the people have said

[11]that the spinal cord was bruised, that sort of a relative

[12]term because it depends on how you look at it. The

[13]spinal cord, looking at it, you could say that's it's

[14]bruised, but bruised from what?

[15]The problem is, is that, based on the facts of

[16]the case, as I've **[*59] [**59]** read them and kind of heard about them,

[17]is that he had the angiogram, and at some point, he fell.

[18]After that fall is when he started developing neurologic

[19]deficit; that inside the spinal cord, there are changes

[20]that are consistent with damage to the spinal cord.

[21]Now, since we think that all these things in the

[22]spinal cord are vascular and the reason for that, unless

[23]there was a tumor or infection, it would have to be

[24]something vascular.

[25]Now, exactly how that happened is the question.

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[1]Could you actually have post-angio distal embolization of

[2]cholesterol plaques? Absolutely. Usually, you see them

[3]in more acute periods, but given the fact that there are

[4]other things that could happen inside of the vessels,

[5]that could cause you to have issues more so than just the

[6]plaques, numerous ones being dislodging of cholesterol

[7]emboli. The reason why you usually see them acutely is

[8]it's just secondary to manipulation of a catheter,

[9]because they immediately going to embolize.

[10]A lot of times, you see right after the

[11]procedure that patients have whatever deficits they have.

[12]They wake up with **[*60] [**60]** it, because that's what happens.

[13]Realistically, you could actually have a

[14]dissection of parley (phonetic) order, which can actually

[15]dissect it to the renal arteries or into the anterior

[16]spinal arteries, which might not give you a problem right

[17]away, but you would actually see some problems with it

[18]and keep seeing problems with it, if not treated.

[19]The reason why after he had this fall -- the

[20]reason why it appears to me that it's more likely that it

[21]is from embolization -- and it's just going to be

[22]supposition, because of course I wouldn't kind of swim

[23]around in there and don't really know what actually

[24]happened -- but he actually had the problems with his leg

[25]and his feet. Urinary issues are sort of a separate

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[1]issue, but that happened right after the fall.

[2]So, conceivably, what could have happened -- and

[3]like I said, this is supposition -- is that, when he

[4]fell, since there wasn't any instability in his spine, he

[5]didn't fracture anything, there was no disk herniation,

[6]that he could conceivably have knocked something loose;

[7]meaning that, you know, could have there been something

[8] **[*61] [**61]** that happened from angio? Sure. But this, indeed,

[9]caused something that happened from a vascular standpoint

[10]that caused his further symptoms.

[11]Q. All I'm trying to do at this point is to try to

[12]sort of pinpoint your theory of the mechanism here, and

[13]from that, go back into your experience and what other

[14]cases, in your experience, have you had that involved

[15]this type of a mechanism of spinal cord injury.

[16]So, basically, what you're saying then is you're

[17]not talking about anything compressing the spinal cord in

[18]this case but, rather, a mechanism that somehow there is

[19]a compromise of the vascular supply probably from

[20]embolization that caused the condition here; correct?

[21]A. Correct.

[22]Q. Just describe for me what has your experience

[23]been with that type of mechanism of spinal cord

[24]infarction.

[25]A. Well, the problem is that -- I'm a neurosurgeon,

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[1]and so when patients have any problems, given that

[2]scenario, it's not a neurosurgical disease; so evaluating

[3]these patients -- you know, this doesn't happen all the

[4]time but -- I mean, everyone knows, whether you're a

[5]neurologist **[*62] [**62]** or a neurosurgeon, what the physiology of the

[6]spine is -- or the spinal cord is.

[7]Normally what we see is we see that when there

[8]is Arteriovenous Malformation or something where you

[9]actually have to catheterize the anterior spinal artery.

[10]I mean, you have the issues with the emboli, and things

[11]like that. We've actually gone in and done embolizations

[12]-- or not embolizations of that, but doing embolizations

[13]of AVM's. You can actually see what happens better --

[14]Sorry.

[15]THE REPORTER: You can actually see what happens

[16]better --

[17]THE WITNESS: -- that anyone else, based on the

[18]fact that -- you know, neurologists don't do anything

[19]invasive in that respect, and unless, of course, you're

[20]doing an angio of the spine itself, looking at the spinal

[21]artery, it would kind of be hard for them to see

[22]firsthand what exactly happened and the sequelae from

[23]that happening.

[24]So being part of cases where we actually go in,

[25]do an angio, go into the anterior spinal injury to

66

[1]embolize an AVM, Arteriovenous Malformation, in the

[2]spinal cord and then actually see radiographically what's

[3]being **[*63] [**63]** occluded or embolized, and then waking the patient

[4]up and seeing what deficits that they've had -- I've seen

[5]that firsthand. I think that gives me experience in that

[6]respect more so than a lot of other people who actually

[7]don't do those types of tests.

[8]And these are the ones that I did -- I assisted

[9]with when I was in residency, to actually see firsthand

[10]what can happen when those areas are embolized and what

[11]the neurologic sequelae are after having that done.

[12]BY MR. SPEARS:

[13]Q. Have you ever had experience with a patient who

[14]had had embolization or suspected embolization to the

[15]spinal cord following an angiographic procedure of the

[16]coronary arteries or the aorta or the renal arteries?

[17]A. Yes, I have.

[18]Q. How many such cases have you seen?

[19]A. I used to actually see -- you don't see it that

[20]often, but I saw it more so early on in my residency and

[21]told the cardiac guys not to consult us anymore, because

[22]there was nothing from a neurosurgical standpoint to do.

[23]So, basically, the patients would wake up from the

[24]procedure not being able to move their legs.

[25]And it's in **[*64] [**64]** a certain distribution because

[67]

[1]they'll have a lot of times, of course, bladder problems,

[2]which you don't really see initially, because everyone is

[3]catheterized if, indeed, there: have a problem moving

[4]their legs, and it's post-procedure.

[5]They have some sensory changes, and they

[6]actually have no motor function, and these are what you

usually see right when they wake up if there's a problem

from the angio.

Q. And you're talking about -- you mentioned a

distribution that's involved. What distribution would

that be?

A. That would be occlusion of the anterior spinal

artery which supplies blood to the anterior portion of

the spinal cord, which is what's responsible for --

that's where all the cells are responsible for your

movements.

Q. Does that also control bowel and bladder

function?

A. Bowel and bladder function is controlled further

in the middle of the spinal cord, and basically, the

anterior spinal artery supplies the front half or what

we call the "ventral half" of the spinal cord so that

wouldn't infarct that area.

Q. And sensory changes would **[*65] [**65]** be related to what

part of the cord?

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A. Sensory changes are basically all over the cord.

The part that would be affected in the anterior portion

is something called a "spinothalamic tract," which is the

anterior part, which is by the motor part of the cord,

and that would be a decreased sensation to pinpricks or

pain.

The part that would be preserved is the

posterior portion, which is called "the dorsal column,"

which is responsible for appropriate movements in space

and light touch.

Q. About how many cases have you seen where

there has been a spinal cord infarction following an

angiographic procedure for the; coronary arteries, the

aorta, or the renal arteries?

A. I would be guessing if I said -- this would be

many years ago.

Q. When was the last time that you had been

involved or seen such a case?

A. I can't recall. It would have to be probably in

my second or third year of residency; so maybe about four

or five years ago. And the reason for that was because

they no longer consulted us on cases which they thought

were -- didn't warrant a neurosurgical **[*66] [**66]** eval, just a

matter of educating the residents.

When you have those kind of cases, there's no

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need to call a neurosurgeon in that respect, because

there is nothing that could be done from a surgical

standpoint.

Q. Is there anything that could be done?

A. No. Just hope it gets better.

Q. Would you say that during your residency you

have seen less than ten such cases?

A. Yeah. I think less than ten such cases, but I

would get that personally.

[10]Q. I'm just trying to get an estimate of how

[11]frequently you have seen this event.

[12]A. Probably less than ten, because it's not that

[13]common that you see it.

[14]Q. Is it something that's considered rare?

[15]A. I don't know the exact numbers, but it's

[16]definitely not common with angiographic procedures.

[17]Q. Have you ever been called in a case where

[18]neurological changes developed several hours, maybe even

[19]a day, after the procedure?

[20]A. Not from what I can recall. Usually, it's

[21]immediately after the procedure and sort in the recovery

[22]room or when the patient gets back to ICU bed, where they

[23]actually **[*67] [**67]** call us and say, "Hey, the person who had the

[24]procedure woke up and is not able to move their legs."

[25]Q. During what period of time were some of the
70

[1]cardiologists call in neurosurgeons for consults on such

[2]patients?

[3]A. I'm sorry. Say that again.

[4]Q. Strike that.

[5]I think you mentioned that there is a period of

[6]time during your residency when a cardiologist would call

[7]a neurosurgeon to consult on patients who presented

[8]neurological deficits after the angiographic procedures,

[9]but then they stopped doing that at some point; is that

[10]correct?

[11]A. Yeah. I think it was probably more so the

[12]residents that were consulting us and saying, "Look at

[13]this." And my training program neurologists weren't too

[14]good; so for every neurologic problem, we would get

[15]consulted on that, until we finally just said, "Look.

[16]in this case you can give us a call, but you should get

[17]a neurologist to see them, because there is not really

[18]much, from a neurosurgeon standpoint, to do for this

[19]case.

[20]Q. Other than the experience that you've just

[21]described following angiographic procedures, is **[*68] [**68]** there any

[22]other experience that you have had or any specific

[23]aspects of your training or reading of the medical

[24]literature that formed the basis for your qualifications

[25]to talk about the mechanism of injury in this case?

[71]

[1]A. Like I said earlier, I think the fact that just

[2]going through a training program, neurologists and

[3]neurosurgeons know about the anatomy and the function and

[4]physiology of the spinal cord. I think that I have had

[5]more experience -- a lot more experience than the average

[6]person coming out of training or someone that's been out

[7]for a while, just because of the experience I've gotten

[8]from dealing with spinal cord injuries for six years at

[9]Thomas Jefferson.

[10]Even though it's not the same thing, it's the

[11]same effect on the spinal cord, and there's knowing the

[12]spinal cord's anatomy and physiology and what happens

[13]when it's damaged is the basis for my experience when

[14]dealing with this type of injury.

[15]Q. You've indicated that you also have experience

[16]doing angiographic catheterizations of the spinal

[17]arteries; is that correct?

[18]A. I don't personally do them, **[*69] [**69]** and the reason why

[19]is because it's a very specialized thing to do; and, you

[20]know, usually there's not too many people that actually

[21]do it.

[22]The person who I actually work with who did a

[23]fair number of them is Dr. Robert Rosen, who is now the

[24]Chairman of Thomas Jefferson University, the vascular

[25]neurosurgeon there, and he's also an intravascular

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[1]surgeon, and so that would be where my experience was from.

[2]And, you know, a couple cases is not a lot,

[3]because it's very rare that you actual find arteriovenous

[4]malformations of the spinal cord.

[5]Q. How many procedures have you been involved in

[6]where there were angiograms done on spinal arteries?

[7]A. That I've -- let me think. Probably, I'd say,

[8]definitely less than ten. I would say probably more

[9]around the line of five where I've actually personally

[10]been in the angio suite when it's been happening.

[11]By taking care of patients that this has been

[12]done and actually reviewing their films and discussing

[13]these types of patients, probably close to 20.

[14]Q. Of those patients that you have had some

[15]involvement in, whether it's **[*70] [**70]** either been present in the

[16]angiographic suite or been otherwise involved within the

[17]course of the patient's care, how many of those developed

[18]infarctions of the spinal cord believed to be into

[19]embolization from the spinal artery angiogram?

[20]A. It's kind of hard to say, because a lot of

[21]times, when patients come in with spinal arteriovenous

[22]malformations, they already have deficits, and that is

[23]the reason why they actually came in.

[24]More often than not, what we would find is that

[25]on the angiogram, post-embolization angiogram, we would

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[1]see less filling in certain arteries of the spinal cord

[2]not totally taking out the anterior spinal artery, but

[3]them having sensory problems, depending on what part of

[4]the cord was affected. And the problem with that is that

[5]doing an angiogram for a spinal AVM is totally

different

[6]than doing an angiogram in a normal spinal cord, because

[7]the vascular supply is totally --

[8]THE REPORTER: Is totally what?

[9]THE WITNESS: -- because with an arteriovenous

[10]malformation, basically the blood supply is changed and

[11]so that adds a little bit to the dysfunction **[*71] [**71]** of the

[12]spinal cord.

[13]So it's a different entity, but the end result

[14]is the same, because if you get a stroke in the spinal

[15]cord, it depends on where the stroke is and the

[16]distribution of arteries that are supplying it.

[17]BY MR. SPEARS:

[18]Q. Have you read any medical literature that

[19]discusses the development of spinal cord embolization

[20]following angiograph procedures?

[21]A. I'm sure I have somewhere down the line, just

[22]from treating those patients when I was younger.

[23]Q. Are there any neurosurgical textbooks or

[24]references that you use in your practice?

[25]A. Yeah.

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[1]Q. What did you use?

[2]A. There's a bunch of books. I mean, I can go

[3]through them, if you'd like, but just books from --

[4]Q. Got them in your credenza there?

[5]A. -- just books about brain tumors.

[6]Q. Let's limit it to the spine at this point --

[7]A. Okay.

[8]Q. -- or textbooks that would be cover the spine.

[9]A. Actually, it's at home. But it's a book on

[10]spinal surgery by Edward Benzeil, who is one of the big

[11]sponsors at Cleveland Clinic.

[12]Q. Any others relating to **[*72] [**72]** the spine that you use in

[13]your practice?

[14]A. The only one is just a general neurosurgery text

[15]like Youman's or Schmidek and Sweet, which are one of

[16]gilmanze's (phonetic) comprehensive neurosurgery text.

[17]Y-o-u-m-a-n.

[18]Q. And the other ones?

[19]A. It's Schmidek and Sweet, which is just

[20]neurosurgical. (Indicating.)

[21]MR. SPEARS: Did you get it?

[22]THE REPORTER: Yes.

[23]THE WITNESS: And then my brother has other

[24]spine books that I look at, just general approaches and

[25]treatments of the spine, which all these books have

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[1]overlap in what they say. It's just different writers.

[2]BY MR. SPEARS:

[3]Q. And the textbooks that you just mentioned,

[4]Benzel, Youman, and Schmidek and Sweet -- do you consider

[5]those to be fairly authoritative in the field of

[6]neurosurgery?

[7]A. The Benzel book is actually pretty good. I

[8]also, from time to time, look at the spine, which is

[9]written by, actually, Fred Simion (phonetic), which was

[10]my former chairman at Thomas Jefferson.

[11]Between the spine and Edward Benzel's

[12]conferences on the spine book -- those are usually the

[13]two I **[*73] [**73]** refer to, if I have any question. Or a good

[14]resource is just literature, because that sort of gives

[15]you up-to-date stuff with case reports and things like

[16]this.

[17]Q. Okay. Benzel's work and Simion's work -- do you

[18]consider those to be authoritative?

[19]A. Yes. Simian more so than Benzel, just because

[20]Simian -- I actually personally worked with him for five

[21]years, and so the majority of his practice is about 85 to

[22]90 percent the spine, and he pretty much taught me spine

[23]surgery.

[24]Q. Do you consider Benzel's to be reasonably

[25]reliable?

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[1]A. I think it is also, because two of my attendings

[2]that were there the two years before I left, actually did

[3]fellowships with Benzel in Cleveland Clinic, and they're

[4]actually past residents of our program, and those are

[5]guys who actually learned a lot of my information about

[6]spinal cord injury.

[7]One of them was Dr. James Harrop, who actually

[8]wrote the paper with me -- H-a-r-r-o-p -- and so they

[9]were both trained under Benzel, and they are the ones

[10]that basically told me that that was the one spine book I

[11]should get, and I did to make **[*74] [**74]** reference to. So based on

[12]their recommendation, I read that book also.

[13]Q. Are there any journals that you received in

[14]certain topics of neurosurgery on a regular basis?

[15]A. The Journal of Neurosurgery. Specifically,

[16]there is one on pediatrics and one on spine every month

[17]and one on general surgery.

[18]Q. Do you consider those to be generally

[19]authoritative and rely on them in your practice?

[20]A. The best things for them is that they give you

[21]more updated things that have come out in books. They

[22]get updated every so many years. But the good thing

[23]about the journals is that they do give you updated

[24]information on the spine.

[25]Also one thing I forget to mention, and I get

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[1]information from them also, is I'm a member of the

[2]Scoliosis Research Society, which we get information from

[3]their abstracts and things from meetings that are

[4]actually pretty informative in regards to spine surgery.

[5]Q. Do you ever look at the Journal of Spinal Cord

[6]Medicine?

[7]A. I don't think I've ever looked at the Journal of

[8]Spinal Cord Medicine.

[9]Q. Are you familiar with it at all? **[*75] [**75]**

[10]A. I've heard of it, but I've never actually looked

[11]at it.

[12]Q. Embolization related to angiographic procedures,

[13]is that caused -- strike that.

[14]How is embolization caused?

[15]A. It can be caused in two ways. One can be --

[16]both of them are sort of iatrogenically caused by the

[17]surgeon, if there is a procedure going on, but it depends

[18]on what the procedure is.

[19]If you're threading the catheter up the aorta,

[20]it's going to either the brain or the heart. In my case,

[21]it's either the brain or the anterior spinal artery.

[22]There are a couple things that could happen.

[23]You could actually have a tortuous aorta that

[24]has a lot of plaques in it that you can run into and

[25]describe, and you can knock them off. And that's whether

[78]

[1]you're going into the aorta and going into the carotid

[2]arteries, or wherever you're going.

[3]So when you actually knock one of those plaques

[4]loose, it goes distally and embolizes wherever it goes

[5]into. Usually what you get is embolization further down

[6]in the legs or urinal artery, just because those are

[7]bigger than anterior spinal arteries.

[8] **[*76] [**76]** That's why, when you see actual anterior spinal

[9]artery problems, it's very rare just because -- or it's

[10]very infrequent, just because the vessel itself is much

[11]smaller. And so just looking at physics, it's going to

[12]go to a bigger vessel than to a smaller vessel.

[13]And so what ends up happening is, it goes

[14]through the anterior spinal artery, and it could be -- it

[15]could embolize everything, depending on how big it is.

[16]If it's a very small one, then it could embolize

[17]the end and you have less damage; if it's a large plaque

[18]and it gets into the artery, it can get occlude at the

[19]proximal portion of it and can cause a lot of damage.

[20]And that's usually when you find damage to the

[21]whole anterior half of the spinal cord when you actually

[22]occlude the whole artery, and you can have different

[23]problems if you occlude little vessels further down or if

[24]the embolus is really small.

[25]Usually, what you see with people that have

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[1]plaques in their aorta is, like I said, disk

[2]mobilization; so sometimes post-operatively patients

[3]could have blue toes, or they could have different

[4]problems like that, **[*77] [**77]** and that shows that there was

[5]embolization going on distally. I don't know if that

[6]answers --

[7]Q. I think you're talking about two ways that this

[8]can happen.

[9]A. The other one way is if you were actually --

[10]what I was speaking about earlier -- if you were

actually

[11]going into one of the vessels, like you do going into

[12]renal vessels, the iliac, or the anterior spinal artery.

[13]If you're doing anything around those areas, just from

[14]the trauma from the catheter, you can have a dissection

[15]of the vessel there.

[16]Usually, in a patient that actually has

[17]arthrosclerotic disease, usually you don't see that

[18]because the vessel walls are pretty sturdy so you don't

[19]get dissection there. You can also get, if you're

[20]embolizing something that you're trying --

[21]THE REPORTER: Slow down, please.

[22]THE WITNESS: -- if you're embolizing an

[23]Arteriovenous Malformation, basically what you do is you

[24]put glue into it. So the problem is, when you're doing

[25]that, you can get glue distally in one of the vessels

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[1]that occluded. So those would be other ways that you

[2]can actually have problems with embolization **[*78] [**78]** distal to

[3]wherever you're working.

[4]BY MR. SPEARS:

[5]Q. You've done catheterization procedures?

[6]A. Yes.

[7]Q. And you mentioned that you don't actually do

[8]spinal artery catheterization procedures.

[9]A. Right.

[10]Q. That type of catheterization procedures do you

[11]do?

[12]A. I've done cerebral angiograms.

[13]Q. Is that something you still do in your practice?

[14]A. No, I don't.

[15]Q. When was the last time that you've done that?

[16]A. In June of 2004.

[17]Q. Residency.

[18]A. Correct.

[19]Q. And in the cerebral angiograms, do you do those

[20]with the radiologist?

[21]A. No. My attending basically is a vascular

[22]neurosurgeon; so the radiologist didn't need to be

[23]present.

[24]Q. And what vessels are accessed and where?

[25]A. The vessels that are accessed are the iliac --

[81]

[1]the femoral artery, and you go through the aorta, up to

[2]the carotid arteries in the neck, and also the vertebral

[3]arteries in the neck.

[4]Q. Have you ever had a suspected embolization

[5]during the spinal cord arteries during a procedure like

[6]that?

[7]A. No. **[*79] [**79]**

[8]Q. Returning to an angiographic procedure involving

[9]the aorta, the renal arteries, and the coronary arteries,

[10]it's your understanding that's the type of procedure that

[11]was done here?

[12]A. Correct.

[13]Q. In a case like that, if you do have an

[14]embolization to the spinal cord arteries, is there a

[15]certain progression of neurological symptoms that you

[16]would expect to see, or is there no specific progression

[17]that you can say would be related to that mechanism?

[18]A. Usually, the way that the vasculature is set up

[19]in the brain or spinal cord is that -- it's actually

[20]really great, because what ends up happening is, when you

[21]actually have an embolus that forms and then cuts off

[22]flow to whatever part of the body it's affecting, in all

[23]the other organ systems, you might not see it immediately.

[24]In the brain and spinal cord you actually see it

[25]immediately. Where once the blood supply is cut off in

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[1]that area, a lot of times even with the brain -- the best

[2]way to explain it is that, when I'm clipping an aneurysm,

[3]you actually have marking on the patient's head, and as

[4]soon as the blood **[*80] [**80]** supply is cut off to that area, we

[5]usually only cut it off for about three minutes, because

[6]right then, you start seeing changes in all the

[7]monitoring and you start seeing changes in the brain

[8]itself with swelling, or whatever.

[9]In the spinal cord, if there's an embolus that

[10]happens at the time of procedure, you see the person --

[11]and, of course, they're usually asleep for the procedure,

[12]but the reason why they wake up with a deficit is because

[13]that's been a long enough time for them to actually --

[14]you know, for that part of the spinal cord, or whatever,

[15]to have irreversible damage.

[16]I am not sure if that answers your question

[17]but -- I mean, you actually see it kind of right away.

[18]It's usually not progressive, just from the standpoint

[19]that, if I cut off blood supply to -- if I permanently

[20]cut off blood supply to part of my brain that's

[21]responsible for my right leg moving, it's not moving; so

[22]it can't get any worse. So, you know, that's one

[23]specific area that is affected. So can it get better?

[24]It depends on what exactly that artery is occluding.

[25]There's more collateral supply in the **[*81] [**81]** brain than

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[1]there is in the spinal cord; so it allows for other

[2]collaterals to kind of help out in blood supply to get in

[3]that area that's efficient because of the embolus.

[4]And that's why sometimes you see people that

[5]have strokes actually get better. Someone might have his

[6]whole side paralyzed, then they slowly get a little

[7]better and a little better because they have actually

[8]have some collateral flow. So the brain is a little more

[9]forgiving than the spinal cord.

[10]Q. If you have an embolization to the spinal cord

[11]arteries, that can cause the death of spinal cord tissue;

[12]is that correct?

[13]A. Correct.

[14]Q. And the death of the tissue -- does that produce

[15]swelling and edema?

[16]A. In the acute stages, yeah. It just kind of

[17]depends on how big that is. The problem with that

[18]radiographically is that you can't tell radiographically

[19]very specifically if something is ischemic, which just

[20]means it has some decreased blood flow. If it's

[21]infarcted, which means it's totally dead, by definition,

[22]or there is some swelling around it because -- there

[23]might be some swelling around **[*82] [**82]** it, but on the film, you

[24]can't really discern if it's just some swelling or if

[25]it's actually infarcted or ischemic tissue.

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[1]Q. If it's ischemic tissue, then you can have a

[2]development of neurological symptoms that do become

[3]progressive in a period of time?

[4]A. If you have ischemia -- like I said, the brain

[5]is lot less -- actually a lot more forgiving than the

[6]spinal cord. And hence why I said, if there's changes on

[7]the film -- I'm going to say more so the brain than the

[8]spinal cord -- that looks like it's infarcted or it's a

[9]permanent -- it should be a permanent deficit or stroke,

[10]why these people get back some of the function.

[11]But the problem is because maybe it might not

[12]have been totally devoid of blood flow, but it was devoid

[13]enough -- of enough blood flow to cause some swelling in

[14]that hemisphere or that part of the brain that we're

[15]looking at off of films.

[16]So in the spinal cord, like I said, there's a

[17]lot less collateral flow, and injury to it is a lot less

[18]reversible. I'm not saying that people that actually

[19]have spinal cord damage or spinal cord injury don't get

[20] **[*83] [**83]** better.

[21]I don't think that anyone truly knows the answer

[22]to that, because unless you actually go into the spinal

[23]cord, cut it open and look at it and see what's dead and

[24]what's not, which you're not going to do on someone

[25]that's alive, it's hard to really say, "Did they have

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[1]ischemia, and it got better, or was it just some edema

[2]that was pushing off of the vital parts of the spinal

[3]cord, and now that the edema gets smaller and smaller,

[4]then now we get return function of that."

[5]It's very evident in a type of syndrome in

[6]spinal cord injury called, "The Central Cord Syndrome."

[7]And what that is, is where you actually have an insult, a

[8]traumatic insult to the spinal cord that gets better

[9]overtime, but when you look at it, there is a big, huge

[10]defect in the spinal cord that we can't tell if it's

[11]edema, if it's an infarct, or if it's actually just some

[12]ischemia. Sometimes these people's get better.

[13]With that type of spinal cord injury, I think

[14]the chances of them recovering is probably like 50-60

[15]percent versus if you look at the exam, and it's totally

[16]devoid of any function below **[*84] [**84]** that level, and you know

[17]that the chance of recovery function below that is about

[18]one percent.

[19]Q. As I understand it, from other neurosurgical

[20]attack cases, if you have a cut-off of blood supply

[21]to the spinal cord, that you're going to develop

[22]neurological symptoms related to that cord level, and

[23]it may progress over a period of time. Is that fair to

[24]say?

[25]A. Well, that's hard to say specifically, because

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[1]it all depends on the mechanism. If it's something

[2]secondary to infection, something secondary to tumor,

[3]something secondary to you actually having what we call

[4]"Syrinx," which is a water cavity in the spinal cord, you

[5]can't tell on a gross level what has been permanently

[6]damaged or what's actually just being compressed, because

[7]you can't tell differing between edema, per se, and

[8]myelomalacia, or dead tissue. There's no way to tell by

[9]looking at it.

[10]So looking at these films, if that were two days

[11]old or a month old, it could look exactly the same, or if

[12]it were a year old, it could look exactly the same. And

[13]so if it were two days, I would say, "Maybe it might be

[14] **[*85] [**85]** some edema." You know, "maybe," you know. I don't know.

[15]You'd have to check everything.

[16]If it's a year later, you'd say, "Well, that's

[17]just damage that's been done, just probably some damage

[18]to the cells there." "It's myelomalacia," because after

[19]a year, it's still there. That means it's just permanent

[20]damage that's there.

[21]Q. Well, if you do have a cutoff of blood supply to

[22]the spinal cord through something occluding on the spinal

[23]arteries, whether it's an embolization or a mechanical

[24]compression on the spinal artery, can that cause a

[25]patient to develop progressively worsening neurological

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[1]signs and symptoms?

[2]A. With embolization it shouldn't be progressively

[3]worsening. It should be -- like I said, when you

[4]actually have an embolization of it, you get blood supply

[5]cut off immediately.

[6]Like, say, for instance, if there's a way that I

[7]could temporarily cut off your blood supply to that

[8]artery and then open it up again, you would immediately

[9]within, I would say, seconds to a minute lose function

in

[10]your lower extremities.

[11]If I open it up again, you'd get it back. **[*86] [**86]** And

[12]it would just happen that quick. Maybe not that quick --

[13]I snapped my finger -- but you would see an immediate

[14]change either with embolization or removing that occlusion.

[15]Q. And if you do have immediate change with the

[16]occlusion and the occlusion is not removed, will the

[17]patient exhibit neurological signs and symptoms that

[18]progressively worsen over a period of time?

[19]A. It could progressively worsen, but acutely, in

[20]the span of five, ten minutes or an one hour; not in

[21]regards to hours or days.

[22]And a lot of times the thoughts are that if

[23]there is progression of neurologic symptoms, it's because

[24]there's a process that's continuing to go on, not the one

[25]same process that happens.

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[1]So the thought is that maybe sometimes what you

[2]see even -- and I keep saying the brain. It's lot easier

[3]to have emboli to the brain than a spinal cord, but it's

[4]the exact same mechanism.

[5]When a patient has atrial fibrillation, they get

[6]a stroke, they have some bruise. They call them,

[7]"Transient Ischemic Attack." They might have a deficit.

[8]It can progress because they continue showering **[*87] [**87]** emboli

[9]from their heart.

[10]They might have -- you know, if they have one

[11]episode, then that usually doesn't get worse, unless

[12]there is more emboli that shower; and so, if there's an

[13]ongoing process of showering emboli, then you can see why

[14]there would be progressive deficits because more arteries

[15]are being embolized and, therefore, more deficits from

[16]that problem.

[17]Also with spinal cord injuries, what you can see

[18]is, if there is increasing edema, you can see someone

[19]that has a certain level ascend maybe two or three

[20]levels, just because of the swelling that's there.

[21]Q. And the edema occurs over what period of time?

[22]A. It kind of depends on the injury. And, you

[23]know, everyone says in the brain and the spinal cord that

[24]you see a maximum amount of swelling in 48 to 72 hours,

[25]but that would be -- you know, you would have maybe a

[89]

[1]progressive neurologic deficit: if the thought was that

[2]there was some quote/unquote "Edema."

[3]Usually, what you see there is trauma where you

[4]actually have something pressing on the spinal cord mand

[5]there's an anatomic problem that's causing the **[*88] [**88]** injury.

[6]Q. Wouldn't the same concept of edema apply if

[7]there is a cut off of blood supply to part of the cord

[8]caused by occlusion?

[9]A. It all kind of depends on the extent of the

[10]occlusion. If it affected an area that was -- a good

[11]majority of the spinal cord.

[12]I haven't actually seen -- doesn't mean it's not

[13]possible -- people actually have a level that increases

[14]or ascends with spinal cord infarctions. I see that in

[15]spinal cord injury. And the problem with that is because

[16]it's two totally different mechanisms.

[17]Now, in regards to looking in the spinal cord,

[18]you'd say, "Well, it's all damage to the spinal cord."

[19]Yeah, but it's two different mechanisms, and I don't know

[20]why specifically you see that. It might be just from

[21]some of the instability.

[22]Also what you see in spinal cord injuries is

[23]that you get a round of hypotension the patient is going

[24]through when they go into spinal shock; and so,

[25]therefore, there is more compromise of the blood flow.

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[1]Then it's still vascular because now, instead of you just

[2]having an insult to the spinal cord, you're actually

[3]having **[*89] [**89]** a global insult from having decreased blood

[4]pressure, which you don't usually see where there is an

[5]infarction.

[6]Q. During an angiographic procedure, such as the

[7]one that Mr. Spradling underwent in this case, that can

[8]cause instability from the plaque?

[9]A. Uh-huh.

[10]Q. Is that a "Yes"?

[11]A. Sure. I'm sorry.

[12]Q. It can cause loosening of the plaque; is that

[13]correct?

[14]A. Yes. And, I mean, I would be better able to

[15]talk about that if I actually saw the angiogram. And I

[16]think somewhere in the deposition or somewhere it was

[17]stated he had had multiple angiograms in the past, and I

[18]didn't see in the report any complications from them or

[19]any problems.

[20]And I think in my reading -- and I can't

[21]remember if it was from one of the doctors' notes or

[22]someone -- but I think something was stated about aorta,

[23]where it was diseased or something. I can't remember

[24]specifically, but I remember reading something about it

[25]in the reports that I've received.

[91]

[1]Q. Okay. But if in a diseased aorta, such as

[2]Mr. Spradling's here, angiographic procedure can cause

[3]plaque instability **[*90] [**90]** or loosening of the plaque; is that

[4]correct?

[5]A. I guess it's possible. You're navigating a

[6]catheter by it, and it's possible.

[7]Q. And is it possible then for that to cause

[8]embolization of plaque over a period of time after the

[9]procedure?

[10]A. There are all kind of physiology of doing an

[11]angiogram and plaque, you know, being embolized distally

[12]from it. I can't say that I've read or ever heard of

[13]someone having a delayed effect from embolization from

[14]the angiogram itself at a distant -- at a distant time

[15]secondary to the fact that, if you're mechanically doing

[16]things, you usually get a shower of emboli when you're

[17]doing it. The same thing with all vessels in the body.

[18]If you don't get a showering of emboli or any

[19]problems acutely when you're doing it from dislodging it,

[20]then remotely -- you know, I haven't seen -- that hasn't

[21]happened, but remotely I haven't heard of anything or

[22]don't know of any reports that document that, outside of

[23]having no other reason for any problems.

[24]Q. But in terms of the medicine, the physiology

[25]involved, it's something that can happen. A delayed

[92]

[1] **[*91] [**91]** embolization following procedure like that, due to

[2]loosening or a disruption of the plaque.

[3]A. In theory, I guess it's -- anything is possible,

[4]but the problem with that theory is just that, when

[5]you're going through with the catheter and you're

[6]dislodging things, there's always constant blood moving

[7]so they go -- just embolize.

[8]Once you take the catheter out -- like I said,

[9]all the people that I've seen that have problems from

[10]an angiogram when they've showered emboli has been,

[11]immediately when they wake up, they have a problem.

[12]Some of the things that you might not see

[13]immediately, because the patient might not be awaken, or

[14]whatever, they might have some ischemia in one of their

[15]toes or something like that, which might not be picked up

[16]on exam, and it might a couple days that the patient

[17]says, "My toe is a little cold," and whatever. "There's

[18]something wrong. My toes are turning a little blue or

[19]something."

[20]And that wasn't a delayed effect. It's just a

[21]delayed report, because that was there, and it takes a

[22]little while for the toe to actually get blue and

[23]necrotic, **[*92] [**92]** and all those things.

[24]The person might not notice it right when they

[25]wake up, and they say, "My foot is a little cold," or

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[1]whatever, but those progress pretty quickly after that.

[2]Q. Are you familiar with medical literature that

[3]does report cases where there has been a development of

[4]bilateral leg weakness and sensory disturbances in a

matter of 24 hours following an angiographic procedure?

A. I can't quote any, off the top of my head, but

then, it would also -- sure, there is something out there.

And, you know, when you're looking at the time

period that a person develops any kind of neurologic

deficit problem, one important thing you have to look at

is, one, "Who is writing the paper?" Two, "What kind of

studies they have, or is it a case report?" And, three,

what exactly happened.

So those are some critical things we look at

when you look at all the literature as to exactly the

validity of it. And everyone kind of quotes probably for

this literature.

I can't tell you, off the top of my head, what

the quotes are, but times periods over probably zero to

**[*93] [**93]** six hours to twelve hours to twenty-four hours to, you

know, later on, if there's any deficit, and then it just

depends on what the deficit is.

The issue with urinary problems is that, if

you're looking at specifically that, which I say could be

held separately from the other neurological problems that

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he actually has, is that, for the first day or so, that

might be -- you know, unable to be really tested, because

maybe, without knowing what he got, anesthesia, or doing

other things, if he wasn't able to urinate, it could be

secondary to that, not because of problems with anything

being embolized.

But the fact that -- whether that's a fact or

not, I don't know if he was able to urinate or not after

the procedure, it would be probably some of the -- you

know, one of the deciding factors.

Like I said, if he was able to urinate, that

means everything should be working fine; if he was not

able to urinate, that doesn't mean that everything still

was not working fine. It just means that maybe there

were other factors playing a role in him not urinating.

But I think, you know, **[*94] [**94]** that that actually became

one of the biggest questions, from what I can see in this

case, because that's the one thing that's the most

socially bothersome. But he does actually have other

neurologic deficits, which I think, to me, as a

neurosurgeon, are eyebrow raising, because they're there.

And the fact that it actually happened

afterwards sort of means that, obviously, for whatever

mechanisms happened, this was the reason why he now has

the other neurologic deficit. The spine, the whole

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bladder, and the continence issue.

[2]Q. Specifically, what deficits are you talking

[3]about? Are you talking about the leg weakness and the

[4]sensory changes?

[5]A. Yeah. And, like I said, I never examined the

[6]patient myself; so I can't speak very intelligently about

[7]what he actually has and what the deficits are, just

[8]reviewing notes by other neurosurgeons and neurologists.

[9]Q. In the literature I've looked at in spinal

[10]cord embolization following angiographic procedures do

[11]reflect case reports where neurological symptoms

[12]developed 24 hours later.

[13]A. Uh-huh.

[14]Q. So are you **[*95] [**95]** saying that in those case, it's not

[15]due to embolization from the angiographic procedure?

[16]A. I'm not familiar with the case reports that

[17]you're talking about, but I think that when you're

[18]actually doing an angiogram, as you see there's -- case

[19]reports mean they're not very prevalent. We're getting

[20]on the lines of what is sort of plausible or what's

[21]possible.

[22]I mean, anything is possible. You're in there,

[23]and like I said, you can have a dissection, you can have

[24]a number of different things. A dissection is a totally

[25]different beast from having an embolization from

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[1]cholesterol plaque or other things.

[2]So is it possible that this guy had -- this

[3]patient might have had an embolization from a cholesterol

[4]plaque that kind of shook loose on its own without -- you

[5]know, with the patient just lying in bed or -- I don't

[6]know. I haven't read the case reports; so I don't know

[7]specifically. Could the guy have had a dissection in the

[8]artery there that gave him an emboli later on down the

[9]road? It's possible.

[10]Usually in patients that actually have, like I

[11]said, really hard cholesterol-filled **[*96] [**96]** or plaque-filled

[12]aortas, the chance of having a dissection is pretty slim,

[13]just from the standpoint that the wall is very stiff, and

[14]so you have to probably beat the wall pretty hard to

[15]actually get through it because of dissection, which is

[16]just the ripping of the wall of the aorta.

[17]Usually, you see that with patients that have

[18]abdominal aorta aneurysms without even treating them, but

[19]you probably don't see it a lot in patients that actually

[20]have just carotid -- actually cardiac disease and have a

[21]lot of cholesterol lying in their aorta.

[22]So, to answer your question, is it possible? I

[23]guess it's possible. Anything can happen, but you know,

[24]the question I would ask is: One, who examined the

[25]patient? Was there any sign of deficits that were

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missed? And I don't think any person would say, "Yeah,

you know what? I'm going to write in this case report

that I actually missed diagnosing this guy because I

didn't do a thorough neurologic exam."

So I don't lend a lot of credence to what case

reports say. You really have to find out who is writing

them. And if you're going to base your **[*97] [**97]** practice on what

someone wrote in a case report, I would even think it

would be worth calling the person and actually talking to

him, and that's what I do in my practice.

Q. Are you aware of there being any studies, other

than just anecdotal case reports about cluster (phonetic)

embolization to the spinal cord arteries following

angiographic procedures?

A. I can't quote any specific cases, just because

it doesn't happen that often; so I don't know how one

would actually study it. It would just be on a random

basis that someone would have a plaque dislodged in --

like I said, it usually goes to the renal arteries or the

lower extremities, whatever goes to the anterior spinal

arteries.

Q. Doctor, it shows in marked as Exhibit No. 3,

which is a disclosure of your opinions, there's paragraph

No. 2 there. I take it -- I know that's sort of a

simplistic overview of your opinions that are more

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specific. They're stated in your report, but is that an

accurate statement of your opinions on this case?

A. It's a rough overview with some clarifications.

Under 2B, which says, (reading): **[*98] [**98]**

"Based on the revie>w of the records and

experience, my opinion is that his

neurologic injury occurred after he actually

fell."

And this is common knowledge, just based on

the reports I've read and the depositions that have been

given by Mr. Straddling and his wife.

And the reason why I said that I thought that

it happened from embolization of the spinal cord was

secondary to the mechanism of how it happened; it not

being a traumatic stability issue. But the fact he

actually does have a vascular problem within his spinal

cord, and he could get that from instability issue, but

he didn't have that

So the only other way that he could actually

have that problem, regardless of where it came from, is

that, for some reason, he had a vascular injury from his

spinal cord after he fell.

Now, there's no way I can say that 100 percent,

because even if I had every bit of data, even if I talked

to Mr. Spradling myself, this is all based on what the

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[1]events were. And I'm basing it on the fact that he

[2]didn't have any of the other neurologic symptoms prior to

[3]this. He **[*99] [**99]** was walking around his room, he didn't have any

[4]weakness, he didn't have any numbness, but immediately

[5]after his fall, he did.

[6]If you take someone who doesn't have vascular

[7]compromise already and they fall on the ground, unless

[8]there is any kind of anatomiceil problem that is from a

[9]disk herniation or something pressing on the Cauda Equina

[10]or the Conus Medullaris itself, then a normal person

[11]shouldn't have these problems after falling from two

[12]feet.

[13]And that's totally separate from his urinary

[14]issues. Because if, per se, we found out that he was

[15]in the hospital for five days -- and this is just

[16]supposition -- that on Day No. 2, he had urinary problems

[17]and then he fell off the commode, and he developed more

[18]neurologic problems, that's totally separate from the

[19]urinary problems that he had which could have been from

[20]the angiogram, which is totally separate because now he

[21]does have neurologic problems that are secondary to him

[22]falling.

[23]Q. Going back to your report, which Exhibit No. 4.

[24]A. Can I ask a question? Would it be okay to take

[25]a break for one moment.

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[1] **[*100] [**100]** MR. MATEER: Go ahead.

[2](Brief recess.)

[3]BY MR. SPEARS:

[4]Q. Doctor, I want to refer you to your report,

[5]which has marked as Exhibit No. 4. On the second page,

[6]about six lines down, your refer to the symptoms,

[7]referring to lower extremities symptoms, back pain, and

[8]problems with urination being consistent with post

[9]angiography spinal cord embolization; is that correct?

[10]A. Uh-huh.

[11]Q. Is it your opinion that the symptoms in this

[12]particular patient are post-angiography spinal cord

[13]embolization symptoms?

[14]A. I'm trying to figure out how to answer that one.

[15]Yes, they are, but they're not only

[16]post-angiography embolization symptoms. Basically,

[17]they are symptoms of vascular compromise in the spinal

[18]cord at that level, and it's ones that you can see

[19]post-angiographically, just because a lot of times

[20]post-angiographically, that's where you get actually

[21]infarctions with anterior spinal cord damage, but you

[22]also get weakness; actually, extreme weakness or

[23]paraplegia with that also.

[24]So even though you can actually see them

[25]post-angio, which you don't usually see, **[*101] [**101]** it's just

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[1]significant for infarction within the spinal cord at

[2]that level.

[3]Q. And what is your opinion as to the most likely

[4]source of an embolization to Mr. Spradling's spinal cord

[5]arteries?

[6]A. I don't know. I would assume -- or I would just

[7]be guessing to say, you know, the things that I mentioned

[8]earlier about the dissection. Or, you know, is it

[9]possible for there to be a loose plaque that was jarred,

[10]a piece jarred loose when he fell or something? I guess

[11]all those are possible, seeing that it's very rare

[12]post-angio to actually even have these symptoms.

[13]The only thing I know for sure is that there is

[14]a change within the spinal cord. Exactly -- the exact

[15]ideology of that, I know that it's not -- you know, the

[16]ones I said earlier with it being because of instability

[17]where there's an anatomical problem where the spinal cord

[18]was hit or secondary to tumor or infarction.

[19]So the only other cause for that single change

[20]in the spinal cord and the deficits that he has from that

[21]area being damaged, it is something vascular, and so the

[22]fact that he actually was just post-angio. **[*102] [**102]**

[23]If he were home and he fell, and it wasn't

[24]post-angio, I can't even think of the chance of him

[25]actually having those symptoms in his spinal cord; so

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[1]when I say, "Post-angiographic symptoms," is because he

[2]was post-angio, not because that may be what caused it.

[3]I mean, it might be that he actually had

[4]something there, that him falling might have caused to

[5]increase. You know, I don't know. It's all supposition.

[6]Q. When you say, he might have had something there

[7]that could have been increased because of the fall, what

[8]are you talking about?

[9]A. I'm just trying to kind of piece it together. I

[10]mean, the facts are simple. What we all see is that he

[11]did have increased neurologic deficit after he fell. The

[12]exact reason why that is, we're still trying to piece

[13]together.

[14]And the problem is, is that we know there is an

[15]incident that happened. He had worsened neurologic

[16]deficit after the incident, and now he has changes in his

[17]spinal cord.

[18]Based on the causes of changes in the spinal

[19]cord or an infarction of the spinal cord, I can only

[20]assume or even think along **[*103] [**103]** the lines of something causing

[21]an embolus to go down to that area of the spinal cord.

[22]I mean, I don't know -- like I said, I don't

[23]know for sure. It can be a cholesterol plaque; it could

[24]be platelets that were clumped under along, you know,

[25]part of the cholesterol there; something might have been,

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[1]you know, jarred loose when he fell.

[2]I mean, I don't see anything in the literature

[3]that really says that that happened before. I think

[4]anything is possible, but I think that, regardless of

[5]exactly how it happened and the physiology of it, the

[6]fact remains that he didn't have these problems before he

[7]fell, and after he fell, now he has them; and "acutely,"

[8]meaning right when he fell.

[9]Now, it would be a little harder if he had it a

[10]day later or two to sort of say, "Well, because he fell,

[11]then that's why now he has something in his spinal cord."

[12]But since it happened acutely, where he actually fell,

[13]got weak, got numb -- you know, like I said, I keep

[14]bringing up the urinary issues.

[15]I think the urinary issues in isolation -- you

[16]know, I'm not exactly sure what that means, because **[*104] [**104]** like

[17]I said, someone could have urinary problems that aren't

[18]even associated with the embolization, change in the

[19]spinal cord. It could be associated with anesthesia or

[20]other things.

[21]But the fact that all of those together, which

[22]are neurologic deficits can be specific findings that you

[23]see from damage in the spinal cord, I would assume that,

[24]because that's when the majority of them started, that

[25]chances are that affected his urinary bladder also.

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[1]Q. How far did Mr. Spradling drop?

[2]A. I am just thinking about how high a commode

[3]could possibly be. I don't think that he fell far enough

[4]to actually cause any kind of instability where you would

[5]see a fracture or anything in his spine that would cause

[6]instability to be a problem for this change in the spinal

[7]cord. If it were something vascular in nature -- like I

[8]said, the trauma itself I don't think caused it from how

[9]you and I think of trauma, meaning that -- okay --

[10]someone fell, they broke their back, they had new

[11]problems, they had pressure on the spinal cord. I don't

[12]think that's how it happened.

[13]I think that whether **[*105] [**105]** he fell ten feet or two

[14]feet, if he didn't break his spine or dislocate

[15]something, damage that caused his spine to be instable

[16]and physically hit his spinal cord, then I think that

[17]it had to be something intrinsic in the spinal cord that

[18]was the problem.

[19]Q. I guess, going back to my original question,

[20]what's your understanding as to how far he

dropped?

[21]A. Just from the commode, maybe two feet or

[22]something. Just the general height of a commode.

[23]Q. So it's sort of like if I went to sit in my

[24]chair and missed it and hit my rear-end down the floor or

[25]something like that.

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[1]A. Right.

[2]Q. And it's your theory in this case that most

[3]likely that jarred some plaque loose and caused an

[4]embolization?

[5]A. That would be my best guess. The problem is

[6]that, functionally, no one is going to ever know what was

[7]actually in there and if something got jarred loose or if

[8]it was just that the vasculature has been compromised

[9]because he is such a vasculopath, meaning that his

[10]vascular blood supply to the spinal cord is not great

[11]anyway, and it may be something that is minor **[*106] [**106]** that might

[12]cause changes in his vascular supply to his spinal cord.

[13]It might not hurt anyone else. It might not

[14]hurt someone that has a normal vasculature, but in this

[15]case, if he fell, then maybe that's what happened.

[16]Q. So if your best guess is that some plaque was

[17]jarred loose, you're saying it's the plaque from the

[18]aorta or where?

[19]A. I don't know. I mean he could have disease --

[20]you know, if I was actually sitting here and actually saw

[21]the angiograph and was there with him doing an angiogram

[22]I could say if he had actual disease in his anterior

[23]spinal artery. If he had actual disease in his anterior

[24]spinal artery, which you probably don't see, because most

[25]people don't image it --

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[1]Could he have plaques in his anterior spinal

[2]artery? Sure. Could there be a little plaque that broke

[3]loose from his fall? It's possible. I mean, you could

[4]actually have a distal embolus from falling and it going

[5]distally into your toes or your leg or something, and

[6]people have very bad disease down there. So, like I

[7]said, with him having such bad vascular problems, there's

[8]no way to **[*107] [**107]** know specifically.

[9]Could he have had some problems with axial

[10]fibrillation that had a blood clot go to his anterior

[11]spinal artery and then when he fell -- that's all

[12]supposition, but embolus can come from anywhere.

[13]Q. You said he had bad vascular problems. What is

[14]the nature and extent of those problems?

[15]A. I don't know the nature and extent of his

[16]problems. The reason why I said he has bad vascular

[17]problems is because normally when patients have

[18]arthrosclerotic disease, bad arthrosclerotic disease in

[19]their heart, they usually have it in other vessels.

[20]And, like I said, I can't remember where I got

[21]it from, but I read somewhere that he had had multiple

[22]procedures in the past with stenting and things before,

[23]and there was something alluded to in a deposition or in

[24]just the notes that I saw that, for some reason, there

[25]was some disease in the aorta, which I would expect to

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[1]see in a patient that has vasculature in his heart that's

[2]that bad.

[3]You can't really have vasculature in your

[4]heart that that's bad and has so much disease in it and

[5]stenting and all those things **[*108] [**108]** without having vascular

[6]disease in other places.

[7]Q. Would a long history of smoking, such as in this

[8]patient, compromise the vascular supply to the spinal

[9]cord?

[10]A. It puts you at a higher risk for developing

[11]arthrosclerotic disease, and definitely, it sorts of

[12]affects every organ system. So I would say a history of

[13]smoking can put you at more of a risk, I would say, than

[14]someone when doesn't smoke, but I don't have any papers

[15]or literature that I can quote you.

[16]Q. Now, if there's plaque jarred loose from

[17]arthrosclerotic disease, this would be disease he would

[18]have had for many, many years; is that correct?

[19]A. Yes.

[20]Q. Are you saying that there's absolutely no

[21]relationship between the spinal cord infarction in this

[22]case and the angiographic procedure, and that it was just

[23]simply coincidence that this happened within 24 hours

[24]after the angiography procedure?

[25]A. I don't think anyone can say that with 100

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[1]percent certainty; because, one, I don't have all the

[2]details surrounding the events that happened. The

[3]documentation isn't the best; so there is no way **[*109] [**109]** to know.

[4]And just given the fact that he did have an

[5]angiogram, there is a possibility, because anything is

[6]possible in that respect. It's normally not what you

[7]see, but anything is possible. And then given the fact

[8]that we can't overlook that he fell, and actually after

[9]that is when the symptoms started sort of -- almost cause

[10]and effect. For whatever reason, the symptoms persisted.

[11]Q. Is it possible that there was plaque that was

[12]loosened through the angiographic procedure? That

[13]movement on the part of the patient's fall in a jarring

[14]motion could cause that plaque to embolize that had

[15]already been loosened from the procedure?

[16]A. I guess it's possible. Like I said, anything

[17]that you could possibly do in a vessel, you know, that's

[18]why there's case reports, because these are the things

[19]that happen once in a while or never that come up.

[20]And, you know, there is no way to say that,

[21]"Absolutely, yes, that's what happened," or "Absolutely,

[22]no, that's not what happened." So, like I said, the only

[23]thing that I can see from reading this is that these are

[24]things that we all can see; **[*110] [**110]** that he fell, and he had more

[25]problems.

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[1]Whether he had some slight problem from the

[2]angiogram, whether or not he had a small infarction in

[3]the spinal cord before this even happened, he has

[4]increased, you know, all those other problems which he

[5]still now has from last that I read from these

[6]descriptions.

[7]So there's in way to know 100 percent sure what

[8]was going on in his spinal cord before he fell, but we

[9]actually know what's going on in his spinal cord after he

[10]fell, just based on his exam, not even based on the MRI

[11]which was done at a later date.

[12]Q. And most of us don't go through life much more

[13]than a year without having falls and bumps and jars and

[14]things like that. Why didn't this gentleman have this

[15]happen before?

[16]A. I can't answer that. It only has to happen once.

[17]Q. All right. So are you saying it's possible that

[18]it's just a coincidence that "his happened within 24

[19]hours after the angiographic procedure and that it may

[20]have nothing to do with the angiographic procedure?

[21]A. Are you referring to the deficits that he has

[22]now and the problems he **[*111] [**111]** has now?

[23]Q. I'm talking about the theory of embolization of

[24]the spinal cord.

[25]A. When we're saying, "embolization," the only

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[1]reason why that even came up was because the thought is

[2]that there's some kind of vascular problem in the spinal

[3]cord that caused decreased blood flow there.

[4]Now, exactly why that is, I don't know. So

[5]whether it's embolization or --

[6]Q. What are the other possibilities?

[7]A. Well, see, the thing is that in the spinal cord

[8]the question is, you know, you can get damage from trauma

[9]which was sort of a forgone conclusion because we've sort

[10]of ruled that out.

[11]The hard problem is, when you actually see

[12]changes in the spinal cord in this respect, you

[13]automatically assume, without really having any

[14]hard-and-fast data to look at, that it's from just

[15]something embolizing, breaking off, then going down there.

[16]No one ever goes in there with a catheter and

[17]looks around, do an angiogram and see the -- "Well, there

[18]is this plaque in there." I mean, you can't see it. You

[19]just know that there's some decreased flow in that

area

[20]for some reason. **[*112] [**112]**

[21]Most likely it is because something went and

[22]blocked it, of course; so you know -- but it's all just

[23]supposition, because this is very unusual case and --

[24]Q. If this patient, like; you said, had dropped a

[25]matter of a foot and a half or two feet at home, maybe he

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[1]missed his chair or something else like that, and there

[2]is no evidence of spinal instability, and there never had

[3]been an angiographic procedure, then what would be your

[4]thought process as to what the likely mechanism was?

[5]A. It would be -- you know, I would go through all

[6]the differential of infection, tumor, blah-blah-blah.

[7]All of those things.

[8]Q. Assuming that there is no infection or tumor.

[9]A. Right. I mean, this would be --

[10]Q. Okay.

[11]A. -- embolization by something.

[12]Q. Have you ever seen or heard or read about

[13]embolization being caused by someone dropping a matter

[14]of a couple of feet unrelated to any sort of an

[15]angiographic procedure?

[16]A. Yes, but that was not because of the instability.

[17]it was because there was probably a little bit of

[18]stenosis of the spinal canal there, **[*113] [**113]** not any gross

[19]instability. So that was the direct result of trauma.

[20]Q. We're not talking about stenosis of the canal

[21]here; is that correct?

[22]A. No.

[23]Q. So, apart from the situation of stenosis in the

[24]spinal canal, have you ever heard or seen or read of

[25]someone dropping or having the force of dropping in a

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[1]matter of maybe a couple of feet causing embolization to

[2]the spinal cord?

[3]A. Not to my knowledge, but with the caveat being

[4]that there is no way to know, from a general point of

[5]view, if there is any problem with sort of navigating

[6]through the aorta and there being disease in the aorta,

[7]and in acute postoperative period, someone having a

[8]trauma. There is not going to be any paper out there or

[9]information out there stating that 6 hours or 12 hours or

[10]15 hours after getting an angiogram what the risk of

[11]causing embolus formation or having a neurologic deficit

[12]if you have a trauma.

[13]I mean, there's not going to be -- it's not

[14]common that people even have any kind of embolization to

[15]the spinal cord. And there is really not going to be any

[16]reports of anybody falling **[*114] [**114]** in their room after having

[17]that procedure; so there's no way to say, if you took 100

[18]people after they had an angiogram that had bad aorta

[19]disease, and you dropped them two feet, how many of them

[20]would have spinal cord deficits?

[21]I mean, that not going to ever be a study that

[22]could be done, but that doesn't mean that it's not

[23]possible.

[24]Q. Apart from the studies, have you read or heard

[25]about any anecdotal cases where someone dropping a couple

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[1]feet produces embolization of the spinal cord?

[2]A. No.

[3]Q. In fact, wouldn't this be sort of an unexpected

[4]result from that sort of a fall?

[5]A. I haven't heard of it. I've heard of it -- to

[6]qualify my last statement, I've heard of it in the

[7]setting of someone that has stenosis, but not in the

[8]setting of someone that doesn't have stenosis.

[9]So to answer that question, yes, I've heard it

[10]falling from a short distance, but only when there has

[11]been some pathology there that could actually compress

[12]the spinal cord.

[13]Q. What spinal cord level was affected here?

[14]A. Well, the changes in the spinal cord were --

[15] **[*115] [**115]** Q. T12-L1?

[16]A. -- right. But it doesn't affect that level of

[17]function. It's an intrinsic portion of the cord in the

[18]middle of the spinal cord, and so that's why a lot of

[19]time what you can see is spinal cord problems even higher

[20]up that are in the middle of the spinal cord, that that

[21]should be bowel and bladder problems with it.

[22]Also -- and this is just supposition based on

[23]the reports I have from him from the exams that he has --

[24]he has some problems with his feet, which would be L5 and

[25]SI distribution, and then bowel and bladder, which would

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[1]be S2, 3, and 4; so that would be consistent with where

[2]the lesion is and affect the middle part of the spinal

[3]cord distally there at the Conus.

[4]Q. Okay. So it's consistent. Would be it be

[5]considered the central cord region?

[6]A. Yeah. That's absolutely correct, but usually,

[7]you don't call it that that far down. You usually call

[8]it that more up in the cervical spine. But it is. It's

[9]the central part of cord, yes.

[10]Q. Okay. If there is an infarction due to an

[11]embolization at the level we're talking about here, is

[12]there a certain **[*116] [**116]** neurological symptom that you would

[13]expect to see and develop first before the others?

[14](Pause in the proceedings.)

[15]THE WITNESS: Not necessarily. I'm trying to

[16]just think from my past experience and if I've ever read

[17]anything in the literature where it says one occurs

[18]before the other.

[19]Usually, the one that I could say that you could

[20]see without any of the other ones is sometimes bowel and

[21]bladder function. The patients that actually come in

[22]here with what we call a Conus Medullaris Syndrome

[23]or a Cauda Equina Syndrome, some of their first

[24]complaints with the Conus Medullaris Syndrome could be

[25]that they have incontinence, meaning that they were just

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[1]dribbling. They don't feel like they're full. There's

[2]just some nerve and bladder disfunction, where they're

[3]actually storing too much, and their bladder is too

[4]stretched, and then it overflows.

[5]A lot of times that's what you can see with

[6]patients that actually have a structural injury to that

[7]before they start developing numbness in their perineal

[8]region. So I would say -- if I had to take a guess, then

[9]I would say that, **[*117] [**117]** with something that's extrinsic to the

[10]Cauda Equina, the Conus Medullaris Syndrome, per se, from

[11]trauma or a disk or something --

[12]BY MR. SPEARS:

[13]Q. We're talking about --

[14]A. Embolization?

[15]Q. infarction from embolization.

[16]A. I think that if you could have one without the

[17]other, I would say you probably have bowel and bladder

[18]difficulty versus the other symptoms.

[19]Q. If you do have the other symptoms involved

[20]in the lower extremity, motor weakness, and numbness,

[21]is that something that can develop after the bowel and

[22]bladder problems when they're talking about this sort of

[23]embolization?

[24]A. I haven't seen it, but the problem is, is that,

[25]like I said, it depends on what is actually causing the

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[1]problem. Because if there is some swelling there, then

[2]you can actually have, like I said, some progressive

[3]problems if it's not treated.

[4]So if there's something going on within the

[5]spinal cord itself where there's something progressive,

[6]then it can cause you to have one symptom before the

[7]other one.

[8]Q. Now, with an embolization to the spinal cord,

[9] **[*118] [**118]** the level we're talking about here, what types of

[10]neurologic deficits or changes can you see?

[11]A. Just specifically with vascular changes in the

[12]spinal cord at this level?

[13]Q. Yes.

[14]A. Well, it depends on how much of the spinal cord

[15]is affected. If it's the whole Conus, it can affect all

[16]the nerve roots below it, which would be LI all the way

[17]down through all the sacral nerve roots.

[18]If it's just the center portion of the cord, it

[19]can affect just your bowel and bladder; just based on how

[20]the anatomy of the spinal cord is set up, it can effect

[21]your bowel and bladder, and then, as it gets larger, it

[22]can affect from the bottom up. So the lower nerve roots

[23]climbing out to -- if it took up the whole spinal cord,

[24]then it would affect from there down; so from that LI

[25]level down or T12 level down.

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[1]Q. Is that something that could have happened here?

[2]A. Excuse me?

[3]Q. Is that something that could have happened here?

[4]A. That the infarction got bigger?

[5]Q. Yeah.

[6]A. I guess it's possible. Then it's a question of

[7]what the mechanism of -- what made this **[*119] [**119]** infarction get

[8]bigger.

[9]Q. If someone is unsteady on their feet, would that

[10]be a possible indication of lower-extremity weakness?

[11]A. Not necessarily.

[12]Q. Can it be?

[13]A. It's possible.

[14]Q. Is that consistent with neurological weakness?

[15]A. I'm not sure of how much -- you mean, overall,

[16]is it consistent with neurological weakness?

[17]Q. Yes.

[18]A. Someone being unsteady on their feet?

[19]Q. Yes.

[20]A. Yes, someone could be unsteady on their feet if

[21]they have neurological weakness.

[22]Q. Did you note any references to this patient

[23]being unsteady on his feet prior to the commode event?

[24]A. Not that I saw, and it's just from the reports,

[25]from what I saw. I assumed, from reading, that he was

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[1]steady on his feet beforehand; that this was a change.

[2]Q. If there is embolization to the spinal arteries,

[3]can back pain be one of the presentations?

[4]A. I think the normal -- I'm sure it's possible. I

[5]think the normal presentation of infarct within the

[6]spinal cord is not pain, but definitely, you can actually

[7]have some back pain and maybe even **[*120] [**120]** some abdominal pain,

[8]if you're having -- not so much infarction of the spinal

[9]cord, but just -- you know, I don't know the exact

[10]mechanism of why there is actually pain here, because

[11]it's not affecting the musculature or anything like that.

[12]It's just infringing the spincil cord. But have I heard

[13]it or seen on a report that people are having back pain?

[14]Yes.

[15]Q. And in case of back pain, what is the mechanism

[16]or cause for that in those cases?

[17]A. I'm not sure of what the mechanism is because

[18]you can have back pain just from someone lying in that

[19]position, lying in bed, and it not be actually from the

[20]spinal cord.

[21]If you actually have any kind of spinal cord

[22]damage, you don't have pain associated with it, unless

[23]there is involvement in the nerve roots, and that's where

[24]the pain comes from. Intrinsic spinal cord damage

[25]doesn't cause, quote/unquote, pain.

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[1]Q. I'm just looking at Exhibit 4, which is your

[2]July 13, 2005 report on the second page. The third line

[3]says, (reading):

[4]"It has been well documented that following

[5]the accident, the patient began to have

[6] **[*121] [**121]** lower extremity symptoms, back pains, and

[7]problems with urination.

[8]And then you go on to say, (reading):

[9]These are symptoms consistent with

[10]post angiography spinal cord embolization."

[11]Are you saying that this patient's complaints.

[12]of back pain are related to the spinal cord embolization?

[13]A. I'm not saying that they're related to the

[14]spinal cord embolization, because after falling, it's

[15]more plausible that he has back pain from falling, which

[16]is just totally muscular, has nothing to do with spinal

[17]cord infarction than it being just from spinal cord

[18]infarction.

[19]Q. If he had complained of back pain before the

[20]fall, then what your impression be as to the possible

[21]causes for that?

[22]A. Like I said, usually, and in my experience, if

[23]you have anything intrinsically in the spinal cord, it's

[24]not painful. It's when you have some problem with the

[25]nerve roots.

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[1]I mean, I've had people that I've treated that

[2]were older patients that just have back pain from lying

[3]in bed; so I can't say that any damage from -- any damage

[4]of the spinal cord would be causing him that problem.

[5] **[*122] [**122]** There's a lot of people that actually have

[6]spinal cord damage that's very extensive, not just one

[7]little spot, that might actually have some back pain. I

[8]don't what the exact etiology of it is, but it's kind of

[9]hard to tease-out specifically.

[10]Q. Now, your report says that, (reading):

[11]According to the deposition testimony of the

[12]Spradlings, that he: was able to urinate on

[13]his own following the angiographic procedure

[14]but before the fall but not able to after

[15]the fall.

[16]Is that correct?

[17]A. By their statement, yes.

[18]Q. And is that forming the basis for your opinions

[19]in this case?

[20]A. No. The basis of my opinions are based on not

[21]just his ability to urinate because -- as I expressed

[22]earlier, whether or not he can urinate acutely could have

[23]been for other reasons. A large prostrate, whatever

[24]other reasons, acutely. And it's not uncommon.

[25]Men and women alike, after undergoing any kind

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[1]of procedure, not just a catheterization for a day not to

[2]be able to urinate; so that, to me, the fact that he did

[3]or didn't urinate for that first period of time or the

[4]fact **[*123] [**123]** that -- if they said he didn't urinate that first

[5]period of time, it wouldn't be terribly alarming to me.

[6]The fact that he did void on his own, supposedly,

[7]makes me believe that, "Okay. Well, if he was able to

[8]void, then everything might have been working okay."

[9]The fact that he had these other neurologic

[10]problems after falling is the basis of what I'm talking

[11]about here, because he definitely has those problems --

[12]or he had those problems, which were definitely not there

[13]before he fell, as I assumed from reading the depositions

[14]and the notes that I was given to review.

[15]And so that's basically what I'm basing my

[16]opinion on, because that's a very obvious thing that

[17]happened after the fall.

[18]Then the whole issue of whether the nurses

[19]documented his urine output correctly or incorrectly, I

[20]think at this point to me is non-issue, just from the

[21]standpoint that he did have increased neurologic deficit.

[22]Even if could urinate right now and that wasn't

[23]a problem, he still has other neurologic deficits that

[24]happened after he fell.

[25]Q. He did require a straight catheterization; **[*124] [**124]** is

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[1]that correct?

[2]A. Yes. From what I'm reading, yes.

[3]Q. Do you have an opinion, to a reasonable degree

[4]of medical certainty, as to why he required a straight

[5]catheterization?

[6]A. I would say that, based on my experience just

[7]with surgery, that there are a lot of patients young and

[8]old that are men that sometime require catheterization

[9]after procedures for inability to void. It has nothing

[10]to do with anything in their spinal cord.

[11]Q. What is the etiology or mechanism for that?

[12]A. Some people just say it's anesthesia-related.

[13]Q. Does that inability to void persist for a matter

[14]of 13 hours after the procedure?

[15]A. Sure.

[16]Q. How often have you seen that after an

[17]angiographic procedure?

[18]A. Usually, it depends on whether the patient

[19]actually had anesthesia, whether they just had a little

[20]bit of sedation. Usually, the patients that just have a

[21]little bit of sedation don't have that problem, and it's

[22]sort of a coin toss who would have that problem after

[23]getting anesthesia.

[24]Q. Did this patient have anesthesia here or

[25]sedation?

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[1] **[*125] [**125]** A. I'm not -- I can't remember 100 percent. I

[2]would assume he had anesthesia, but that would be an

[3]assumption.

[4]Q. What's the difference between anesthesia and

[5]sedation?

[6]A. Anesthesia is when they're intubated, they're

[7]totally out, and they may or may not get paralytic

[8]medications.

[9]Q. If a patient has difficulty or inability to void

[10]after a procedure related to anesthesia, would they still

[11]have a sensation of a need to void?

[12]A. Yes.

[13]Q. If they don't have a sensation of a need to

[14]void, does that indicate that it's neurological?

[15]A. I'm just thinking, trying to make sure my last

[16]answer was correct.

[17]I think usually when someone can't void, usually

[18]they will get to the point where they feel they need to

[19]void, but can't, and that's when they get straight cath.

[20]Patients that actually can't feel that they have

[21]to void -- I'm just thinking. I might have had a couple

[22]of people that, you ask them, "Do you need to go?" And

[23]they said, "No," then you straight cath them, and they've

[24]actually had a lot of urine. But I think that it's more

[25]infrequent than people **[*126] [**126]** -- and I'm talking about people

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[1]that have no neurologic deficit. I think it's very

[2]infrequent when they actually don't have neurologic

[3]deficit, and they feel like they don't need to void and

[4]actually need to void.

[5]So, I guess, the answer to your question in a

[6]round-about way is that usually people that actually

[7]don't have -- or usually people that have a neurologic

[8]deficit are the ones that can't feel that they have to

[9]go, but there are occasions when people can't feel they

[10]have to go and actually don't have a neurologic deficit

[11]but need to be straight cath.

[12]And a lot of times, if they have some other

[13]distracting problems -- since I do neurosurgery -- if

[14]they'd had a craniotomy or something, some pain

[15]distracting them, sometime they don't really notice

[16]that they have to go, and they can't go because of the

[17]anesthesia or something.

[18]Q. 800 cc -- that's quite a bit, isn't it?

[19]A. Yes.

[20]Q. What's the normal bladder capacity? About four

[21]to 500 cc?

[22]A. The bladder can get pretty big. Normally, you

[23]start feeling it, I would say, off the top of my head,

[24]you're **[*127] [**127]** definitely feeling the urge around that point in

[25]time because --

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[1]Q. At four to 500?

[2]A. -- I would say, yes, you should probably feel it

[3]around then.

[4]Q. What evidence do you have that this patient did

[5]urinate on his own between the time of the catheterization

[6]procedure and then the commode: event?

[7]A. Just what I see in the reports. I have no other

[8]objective data. Just from what I saw, there is no

[9]documentation from the nursingr staff as to effect that he

[10]actually had -- that he actually voided. The only thing

[11]that I can go from is the fact that he and his wife said

[12]that he actually did so --

[13]Q. Do you know if it's typical, in your experience,

[14]for a patient post-procedure like this to be on I&O's for

[15]a while?

[16]A. Yes, it is.

[17]Q. For how long usually, in your experience?

[18]A. Usually the --

[19]THE REPORTER: Usually the what?

[20](Off-the-record discussion.)

[21]THE WITNESS: -- usually the orders are written

[22]that at least they get that checked every eight hours or

[23]that gets tabulated, unless they just have bathroom

[24]privileges. If they **[*128] [**128]** have bathroom privileges, it's not

[25]really watched that closely.

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[1]But if they have to pee -- urinate -- sorry --

[2]in a bedside urinal, or something like that, usually they

[3]are more stringent about keeping track of it; but then,

[4]of course, you know, a lot of times it doesn't go that

[5]way. So it's not surprising to me -- and it wouldn't be

[6]surprising to me if he actually voided and they didn't

[7]say anything about it.

[8]The problem is that, of course there is no great

[9]documentation as to whether he went or not, and like I

[10][ILLEGIBLE WORDS] to the way I look at this

[11][ILLEGIBLE WORDS] biggest problem in regards to

[12][ILLEGIBLE WORDS] or if he went 50 cc or if he went,

[13]BY MR. SPEARS:

[15]Q. Is it your understanding in this case that he

[16]was ambulatory and did ambulate prior to the commode

[17]event?

[18]A. Yes.

[19]Q. And --

[20]A. That's based on the deposition and my reading of

[21]the summaries there.

[22]Q. -- okay. When you're talking about the

[23]summaries, are you talking about Nurse Miller's report?

[24]A. I can't remember which one specifically said

[25]that he was actually **[*129] [**129]** ambulatory up until this point, but

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[1]I just know that, based upon when I read, that it seems

[2]like he was ambulatory, plus or minus whether he was

[3]urinating on not where there's some conflicting

[4]information. He was ambulatory up until the time when he

[5]actually fell.

[6]And then someone reported that he was still

[7]ambulatory after that, but that, I guess, the wife was

[8]concerned because he wasn't able to ambulate appropriately

[9]and he was definitely a lot weaker with numbness and

[10]tingling and stuff in his legs after the fall.

[11]So I think it was on her deposition where she

[12]actually said that he could walk after the fall, but then

[13]it was difficult for him to Wcilk. And I think she made

[14]reference to a doctor wanting him to walk up and down the

[15]hall, or something like that.

[16]And she felt that it was going to be difficult

[17]to take him home because I remember her mentioning

[18]something about him not being able to climb the stairs,

[19]sort of alluding to how weak his legs were.

[20]Q. Why is it important to your opinions that he was

[21]ambulatory prior to the commode event?

[22]A. Well, not **[*130] [**130]** so much -- I am thinking about it on a

[23]strength level, because the issue of strength is sort of a

[24]plus or minus issue also. If he was having back pain

[25]from the fall, that could affect his weakness; that could

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[1]affect his perception of weakness.

[2]The issue that's a little more interesting to me

[3]is that the other thing that could affect his ambulation

[4]is sensory, and that's probably more of an issue than,

[5]quote/unquote, weakness.

[6]Sensation problems can cause a really -- can

[7]make it very hard for you to actually ambulate, because

[8]it deals with position sense, and where your feet are in

[9]space; and so that can make you wobble and have issues

[10]and make you feel like you're weak.

[11]I think on one of the examinations -- I'm not

[12]sure if it was -- one of the neurosurgeons, Dr. Asher or

[13]Asher or something like that, on his examination, he

[14]stated that his strength was five out of five.

[15]I guess throughout he had some hyperreflexia; so

[16]it seemed like his strength -- I'm not sure. I can't

[17]remember what time that examination was, but it looked

[18]like his strength, per say, was okay.

[19] **[*131] [**131]** So the problem that he had with walking could

[20]have been secondary to problems with sensation; just

[21]position sense, knowing kind of where his feet are in

[22]space. And since, from what I can see, those are the

[23]symptoms that have persisted, then that just lets me know

[24]that there is some neurologic problem that he continued

[25]to experience that only came on after his fall.
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[1]I have no way of knowing if these were present

[2]before his fall, because just from the deposition, it

[3]sounds like after he fell, that's when he, quote, stated

[4]that he became weak and that he had these sensory changes

[5]in his legs.

[6]Q. Is there anything in the nursing documentation

[7]that you're relying upon as a basis for your opinions?

[8]A. Just corroborating the fact that he did fall

[9]and -- so I can't say specifically in the nursing records

[10]exactly if there's anything more specific than that.

[11]Q. Did you note any evidence in the records that he

[12]had any confusion following the angiographic procedure?

[13]A. There was -- yes, there was some. I can't

[14]remember who actually wrote it. I remember, when looking

[15]through **[*132] [**132]** the reports, that there was some question of him

[16]having some mental status changes or some question of his

[17]lucidity. I can't remember specifically the way it was

[18]written.

[19]Q. Did you develop an opinion, to a reasonable

[20]degree of medical certainty, as to the cause of those

[21]mental status changes?

[22]A. Seeing that I always just deal with people's

[23]brain a lot, it could be a myriad of causes for mental

[24]status changes. I can't remember. How old is this

[25]gentleman?
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[1]He's in his 50's or 60's, or something like

[2]that? I can't remember how old he is. Oh, 59. I'm

[3]sorry. It could be secondary to, you know, anesthesia;

[4]it could be secondary to just unfamiliarity with the

[5]surroundings. Sometimes people have mental status

[6]changes when it gets night, and they kind of don't know

[7]what their surroundings are. I don't know what his past

[8]or his prior history is in regards to -- if it has ever

[9]happened before or if he had a history of drinking, or

[10]anything. I don't know.

[11]There are a number of things that could actually

[12]cause you to have mental status changes, and it just

[13]depends on how **[*133] [**133]** long they last. Are they permanent? Do

[14]you have any -- based on dementia, all those things.

[15]Q. And in this case, could the source of mental

[16]status changes be embolic?

[17]A. Yeah, they could from the standpoint that,

[18]when you're going up into the heart, you have to go

[19]through the aorta, and if a plaque came loose, it could

[20]conceivably go to the brain. That's not well documented.

[21]If it went to the brain, it would just be, just

[22]like I stated earlier, about some axial fibrillation

[23]where they have an embolus that can cause a Transient

[24]Ischemic Attack that you would see immediately.

[25]It wouldn't be where the patient actually had it
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[1]later on. The thing is, with the heart, you actually

[2]don't go into the heart. You go into the vessels around

[3]the heart, basically; so it wouldn't affect -- it

[4]wouldn't, in actuality, cause problems later on from the

[5]standpoint that, if you actually went into the heart and

[6]caused a dissection or a hematoma or something in the

[7]heart itself that was pumping out the blood, then you

[8]could actually have a delayed Transient Ischemic Attack

[9]that would could **[*134] [**134]** cause a myriad of different symptoms in

[10]the body just from having a small stroke. But you would

[11]see that immediately.

[12]And because there's so many other reasons for

[13]mental status changes acutely like that, my first thought

[14]wouldn't be that it was because of some embolus especially,

[15]since you couldn't get any kind of imaging study or

[16]anything to say, "Okay. There is something here." And

[17]even if it was from an embolus you might not see anything

[18]on a brain MRI or a CT scan that would validate those

[19]thoughts.

[20]Q. And because it's the brain, if it's a minor

[21]mental status change, it's something that's more likely

[22]to resolve than, for example, an embolization to the

[23]spinal cord.

[24]A. Yes, because there is more collateral flow to

[25]the brain. If you have a problem with one small artery,

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[1]chances are it's not going to cause that big of a

[2]problem, because there blood supply from everywhere,

[3]whereas, in the spinal cord there is not as much.

[4]Q. Have you developed any other opinions in this

[5]case?

[6]A. No.

[7]Q. All right. Do you have any other basis for the

[8]opinions that **[*135] [**135]** we have discussed, other than what we've

[9]already gone over?

[10]A. No. I think we've kind of covered everything.

[11]Q. That's always my hope;. This is my one

[12]opportunity to find out what you would testify to at the

[13]time of trial; so if there is something else that you'd

[14]expect that you would want to tell the jury for your

[15]opinions or the basis for your opinions, basically this

[16]is what I want to hear, and that's why I ask that

[17]question.

[18]Is there anything else that you would want to

[19]tell a jury to support your opinions in this case, other

[20]than what we've already gone over?

[21]A. I mean, the only thing is kind of to reiterate

[22]what I said. The problem is, is that this is a very

[23]strange case, and it's strange because of the events

[24]surrounding the neurologic issues that he has.

[25]Common sense would have it -- actually, not even

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[1]common sense, but if you were just an outsider kind of

[2]looking at the case without having any kind of medical

[3]background or knowing anything about the physiology, you

[4]would say, "The guy fell. He has a problem that he

[5]didn't have before; so something happened **[*136] [**136]** when he fell.

[6]Don't know exactly what happened or how it exactly

[7]happened, but something happened when he fell. Whether

[8]he fell two feet or ten feet, you know something happened."

[9]And there's no way no one is going to know with

[10]complete certainty exactly what the etiology of that is.

[11]You can just see the results of what happened secondary

[12]to his neurologic testing and some of the findings that

[13]we see on the MRI, but there is no way to know with 100

[14]percent certainty what came first, the chicken or the egg

[15]or exactly how it came about.

[16]All we know is just what we see, what the

[17]objective findings are, based on the reports of different

[18]people, and now what condition he is in.

[19]Q. To simplify what you're saying is that, it's a

[20]very unusual case, but because you view the symptoms as

[21]occurring after the commode incident and not before;

[22]that, therefore, it must somehow be related to the

[23]commode incident; is that correct?

[24]A. In my mind, unless I was given some more

[25]information that the neurologic deficits that he has were

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[1]present before he actually had this trauma, then if that

[2] **[*137] [**137]** were the case, then I would say, "Well, it probably

[3]wasn't secondary to the trauma.. It was caused by

[4]something angiographic in nature."

[5]But from all the reports that I see, and like I

[6]said, not being able to talk to the person myself and

[7]just review the records of the deposition and things that

[8]have happened, it seems to me that all these happened

[9]after the trauma.

[10]And so, therefore, something happened during the

[11]trauma, when that happened, to cause him to have these

[12]changes that we see neurologically and, obviously, some

[13]damage to his spinal cord.

[14]Q. What information or evidence of neurological

[15]deficit would you need to be able to say, "Well, it was

[16]something before the fall"?

[17]A. I mean, if he had problems with sensation,

[18]problems with weakness before the fall -- you know, the

[19]numbness, tingling, maybe even problems with position

[20]sense, you know -- like I said, the urinary problem,

[21]there is no way that anyone could 100 percent say that

[22]it's not caused -- it wasn't caused after the fall or

[23]that he had it, you know, during the angiogram. There is

[24]no way you can say with **[*138] [**138]** 100 percent certainty.

[25]All I can say is that we can't even say with

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[1]100 percent certainty that he actually didn't urinate

[2]between -- when the time of the procedure was done and

[3]when he fell. If we could even -- that's something

[4]simple that we can't even know with certainty because of

[5]the conflicting information.

[6]But, I say, even besides that, the urinary issue

[7]in that first 12 or 15 or whatever hour period, to me

[8]isn't the issue. The issue of neurologic deficit and

[9]continued neurologic deficit, besides the urinary

[10]problems, and then also associate out the urinary

[11]problems which, if he had the problems there, then it's

[12]all in that same part of the spinal cord.

[13]Could he possibly have one without the other and

[14]the other one came after the fall? It's possible. But

[15]the fact still remains that if he did fall, and now he

[16]has these deficits afterwards that he didn't have before,

[17]which was isolated at that time.

[18]Q. What if the patient was not able to sense a need

[19]or urge to void with 800 cc's of urine in his bladder?

[20]A. That doesn't mean specifically, beyond the

[21]shadow **[*139] [**139]** of a doubt, that he actually had a urinary problem

[22]before that. You know, I can't -- if there was any other

[23]issue with pain or any other problems that could make him

[24]feel like he needed to go to the bathroom, then that,

[25]too, could be a distracting thing that he might have

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[1]actually been able to feel it, but just didn't notice it

[2]if he was a little confused or something, which I can't

[3]remember if he was or not.

[4]And those are all the reasons why, even if he

[5]felt that he might be a little: confused, that didn't mean

[6]that he had a bladder disfunction.

[7]Q. But if he was not able to sense a need to void

[8]with 800 cc's, that would tend to suggest the possibility

[9]of neurologic involvement, wouldn't it?

[10]A. With all of these things we're talking about --

[11]Q. "Yes" or "No"?

[12]A. -- possibly.

[13]Q. You've gone into medical school; so you probably

[14]learned your bit of Latin. You're familiar with the

[15]phrase "Post hoc ergo proctor hoc"?

[16]A. I am trying to figure out what that means, but

[17]I've heard of those words, yes.

[18]Q. What does it mean?

[19]A. Post Hoc means, **[*140] [**140]** you know, "After the fact;

[20]therefore, that's what the problem was," in so many

[21]words. So, basically, after the fact that we know he

[22]fell, now we're saying, "Well, these are things that

[23]happened because he fell, or because it happened at that

[24]certain point in time." But the problem remains in

[25]there, and that's actually an important thing.

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[1]It's all going to be supposition, because

[2]there's no way at this point to even say, "If he didn't

[3]fall, would he have had these problems?" I mean, that

[4]would be a guess because there is no way to know for

[5]sure.

[6]The problem is that he did fall, and now he has

[7]these problems; so there's no way you could go back and

[8]say, "Well, if he fell" -- "if he did not fall, then

[9]maybe he would still have the same problems." That's

[10]sort of a moot point because he did.

[11]Q. I think the Latin --

[12](Telephone interruption.)

[13]BY MR. SPEARS:

[14]Q. I believe the phrase post hoc ergo proctor hoc

[15]has been classified as a logical fallacy. Your being

[16]involved in medical research --

[17](Telephone interruption.)

[18]BY MR. SPEARS:

[19]Q. your being **[*141] [**141]** involved in medical research,

[20]do you believe in the premise that if something follows

[21]something else, that there is a cause-and-effect

[22]relationship?

[23]A. Usually, but it doesn't mean that it's that way

[24]all the time.

[25]Q. In medical research they talk about things being

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[1]causally related and some things just being associations.

[2]What is the difference between those two

[3]concepts in the field of medical research?

[4]A. That's the whole premise behind -- how should I

[5]say it? -- if something is significantly relevant, and,

[6]therefore, you know, all the statistics that you go

[7]through to see if it was related or kind of associated to

[8]it and what's the chance of that happening.

[9]If something is causally related, it goes back

[10]to saying that it goes to cause and effect; if something

[11]was associated, you're saying that maybe it's just

[12]associated temporally; that there is no cause and effect

[13]associated with it.

[14]In research, as with this case, it's a very gray

[15]area because of all -- you know, the premise is built on

[16]a hypothesis to think of what happened first -- you're

[17]looking **[*142] [**142]** first the chicken and the egg -- and trying to

[18]figure out with -- you know, within research, what's the

[19]probability of this happening from this?

[20]Well, with one patient, there's no way to say

[21]what the probability is because your sample size is too

[22]small, if you're looking from a research standpoint, and

[23]that's why in research you have to have a huge population

[24]to be able to say -- you never say, "Beyond the shadow of

[25]a doubt." You say, "There is a high probability that

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[1]this is causal or this is not."

[2]So you can say, "If the T value is less than .05

[3]or .1, or something, then there is a higher possibility

[4]that this is caused by this."

[5]And it's all sort of based on supposition, even

[6]with research. There is rarely a research where you have

[7]100 percent of your subjects that are the same way 100

[8]percent of the time. And you say, "There is good

[9]probability if 98 percent of them are the same way or 95

[10]percent, but not, you know, 100 percent."

[11]Sometimes you do get 100 percent, but it's not

[12]common research that you run into that.

[13]Q. If a patient has an infarction to a spinal **[*143] [**143]** cord

[14]as a result of embolization and has a drop of blood

[15]pressure, what would the drop in blood pressure -- what

[16]effect would it have on that process?

[17]A. Usually, you see a drop of blood pressure when

[18]you have damage to either the cervical or thoracic spinal

[19]cord higher up. And what that does is, it causes -- and

[20]a simple way to explain it is that the blood vessels

[21]below that level basically have to dilate or get larger;

[22]so that's what caused the drop in blood pressure.

[23]The drop in blood pressure causes decreased

[24]blood flow to come to the spinal cord, to come to the

[25]brain, to come to different organs; so, therefore, the

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[1]amount of blood getting there is just less; and so,

[2]therefore, when you're looking at inflammatory mediators

[3]and things in the spinal cord that can cause more damage,

[4]you can get ascending levels, because now, whatever

[5]pathologic process is going on in the spinal cord,

[6]there's not a good supply of blood coming in to sort of

[7]get those sort of "bad humors" out, so to speak, and

[8]actually supply the spinal cord that's damaged that might

[9]be ischemic, but not infarcted, **[*144] [**144]** the vital blood supply

[10]that it needs.

[11]So if there's a problem with the spinal cord

[12]where, say, your blood pressure needed to be 12 0 to

[13]supply the amount of blood that you needed to go there,

[14]and it's damaged; so, therefore, you need to actually

[15]increase the blood supply going into that area to give

[16]it, you know, more food and nutrients and oxygen.

[17]Now you're dropping it to 60. Now, where it was

[18]just ischemic and wasn't getting enough blood, now it's

[19]getting half of what it was; so now there's an increased

[20]chance of having more spinal cord damage.

[21]That's actually a huge debate. It probably

[22]still is a debate in spinal cord injury models where all

[23]the patients that had spinal cord injury were given

[24]steroids. The fact was that steroids did something to

[25]free radicals and changed --

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[1]THE REPORTER: Please slow down. Free radicals

[2]and changed what?

[3]THE WITNESS: -- and changed the physiology, the

[4]mechanism of what was going on with the spinal cord. The

[5]new thought is -- and actually at Jefferson where I

[6]worked, a couple of attendings were doing a lot of spinal

[7]cord **[*145] [**145]** injury research. I wasn't personally involved in

[8]it, but as residents, we basically implemented the new

[9]things that they were finding in the lab. And that was

[10]that blood flow was actually the most important predictor

[11]of spinal cord injury and further spinal cord damage.

[12]So, therefore, whenever spinal cord injury

[13]patients would come in, we would actually increase their

[14]blood flow and increase their blood pressure to try and

[15]decrease the chance of them having hypoperfusion of their

[16]spinal cord.

[17]Even though I'm not sure where they are in

[18]collecting that data, but in an acute setting, it looked

[19]like the patients actually decreased them from ascending

[20]levels and actual helped them with recovering.

[21]And that's just a small population when I was

[22]there; so I don't know the exeict result, and I don't

[23]think anything has been published on that. But that's

[24]something that's floating around the neurosurgical

[25]literature and neurosurgical practices now in patients

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[1]that have spinal cord injury where there is blood flow

[2]problem.

[3]BY MR. SPEARS:

[4]Q. If you've got ischemia to the spinal **[*146] [**146]** cord, due

[5]to embolization, and you have a drop in the systolic

[6]blood pressure to the 80's, could that cause the cord to

[7]infarct or cause an extension of the spinal cord damage?

[8]A. Sure. It would have to be -- for it to be

[9]caused by the spinal cord, it would have to be a major

[10]infarction or a major damage to the spinal cord to affect

[11]the sympathetic of the body that are responsible for the

[12]vascular tone.

[13]I have never heard of or seen it documented

[14]where drops in blood pressure across the board, without

[15]there being a problem within the spinal cord causing

[16]spinal cord injury. And that's just going from older

[17]patients that might have other problems that might have

[18]even coded or their heart stopped, or something like

[19]that; that even have vascular disease that don't wake up

[20]with spinal cord damage or any spinal cord injury from

[21]that.

[22]Q. What I'm talking about is the drop in systolic

[23]pressure to the 80's, and the patient superimposed on

[24]existing spinal cord ischemia from, for example, 25 embolization.

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[1]A. I understand the question that you're asking,

[2]but in this case, that **[*147] [**147]** wouldn't apply from the standpoint

[3]that, for you to actually have a problem like that, you

[4]would have to have a large area of the spinal cord

[5]affected.

[6]If this were embolized at active level, it's a

[7]very small end vessel that supplies that certain area of

[8]the cord, which is very, very tiny.

[9]For that really to be problematic, it would have

[10]to be somewhere that -- supplying a larger amount of the

[11]spinal cord. And there is still blood getting to that

[12]area, but yet, with decreased blood flow, now it shuts

[13]off that blood flow completely.

[14]If this were an embolization to an end artery,

[15]the artery would be so small where this, finally, piece

[16]ended up, that it would only affect a small minute part

[17]of the spinal cord, not a very large portion of it.

[18]MR. SPEARS: I have no other questions.

[19]MR. MATEER: I have a few follow-up questions.

[20]

[21]EXAMINATION.

[22]BY MR. MATEER:

[23]Q. I had surgery, and after the surgery, I couldn't

[24]tell if I needed to be catheterized or not. In fact, I

[25]didn't want to be, and so I couldn't feel anything, and

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[1]I don't -- "No, don't do it." **[*148] [**148]** Then they used like an

[2]ultrasound or something --

[3]A. Yeah.

[4]Q. "Wait a minute. Your bladder is full. We

[5]got to do it. "

[6]Is that a pretty standard procedure after

[7]surgery that people don't feel it and they have to use

[8]that ultrasound, or whatever it is, to check their

[9]bladder?

[10]A. The thing is, is that: Here, since I've been

[11]working at Cedars, they actually use a bladder scan all

[12]the time. At Jefferson, I never even heard of them using

[13]a bladder scan; so I think it might be hospital dependent.

[14]The thing that I mentioned earlier about the

[15]bladder itself is that, it is possible for you to

[16]actually have -- not have the sensation of wanting to go

[17]because of pain or something else distracting you,

[18]meaning that -- I deal with neurosurgery patients; so

[19]patients that actually have craniotomies, you know -- the

[20]ones that can't urinate, sometimes they just don't

even

[21]know they have to go.

[22]Some of the neurosurgery patients actually wet

[23]their bed and don't know, not because they're incontinent,

[24]just because their mental status is changed or something

[25]else is going **[*149] [**149]** on.

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[1]So if there is something else distracting the

[2]patient, mental status changes, other pain somewhere -- I

[3]actually see patients that actually -- you know, they

[4]don't complain of wanting to go to the bathroom.

[5]Here at Cedars they actually do bladder scans on

[6]patients, and they'll call me and say, "This patient has

[7]such and such amount of urine in their bladder."

[8]I personally don't ask them if they felt like

[9]they had to go, and they don't come to me that they said,

[10]"I need to go." More often than not -- of course,

[11]patients don't like catheters; so they don't complain

[12]about needing to go because they don't want to be

[13]catheterized, unless --

[14]Q. Unless you talk them out of it.

[15]A. -- unless at the point where they they're about

[16]to explode, and they might say, "Get it out of me."

[17]That's usually when you hear the complaint.

[18]Q. Your opinions that you've given in this case are

[19]within a reasonable degree of medical and surgical

[20]certainty; is that correct?

[21]A. Yes.

[22]Q. When you say that it's more probable or more

[23]likely that the fall caused the neurologic **[*150] [**150]** problems that

[24]Mr. Spradling exhibited after the fall, that's within a

[25]reasonable degree of medical and surgical certainty; is

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[1]that right?

[2]A. Yes. And the reason is that, like I stated to

[3]you earlier, from what I'm reading and from what I am

[4]understanding about the case, that these symptoms weren't

[5]present before the fall.

[6]Q. And if, in fact, Mr. Spradling voided

[7]spontaneously after the angiographic procedure before

[8]the fall, what significance would that have?

[9]A. That would make me believe that his bladder was

[10]not affected and that he was able to urinate on his own.

[11]Q. So it hadn't been affected until the fall itself.

[12]A. Based on the information that I have, yes,

[13]because, after the angiogram, then if he actually voided,

[14]then he would have had to feel the sensation that he had

[15]to void or else he wouldn't have voided.

[16]Q. The term "Temporal relationship" has been used.

[17]Your opinions aren't based solely on a temporal relation.

[18]Your opinions are based on the; consistency in the records

[19]of the neurological symptoms that were experienced

[20]acutely after the fall; **[*151] [**151]** is that correct?

[21]A. Correct.

[22]Q. And everything else that you've testified to,

[23]then.

[24]A. Correct.

[25]Q. And the symptomatology experienced by
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[1]Mr. Spradling after the fall, in your opinion, are

[2]consistent with the injury that you saw radiographically

[3]through the MRI?

[4]A. Yes.

[5]Q. So there is a definite relationship between what

[6]you see on the X-rays or MRI's and the symptoms that are

[7]being complained about by the patient.

[8]A. Correct. And where the lesion is in the spinal

[9]cord can definitely cause the symptoms that he's having

[10]and more.

[11]MR. MATEER: I have nothing further. Thank you.

[12]MR. SPEARS: Doctor, you're probably not

[13]familiar with the process for signature of depositions,

[14]but under our court rules in Illinois, a witness has the

[15]right to review the deposition transcript and not to

[16]change testimony, but to make corrections, if anything

[17]was not taking down accurately, or they can waive that

[18]right.

[19]So what do you want to do? You want to read and

[20]sign the deposition, or do you want to waive your right

[21]to do so?

[22]THE WITNESS: **[*152] [**152]** That's a lot of reading.

[23]MR. SPEARS: That's a lot of reading, but then

[24]also --

[25]THE WITNESS: No. I would like to read it.
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[1]MR. SPEARS: -- there's a lot of terminology

[2]here, and you talked pretty fast at times.

[3]THE WITNESS: I talk pretty fast.

[4]MR. MATEER: There are faster people. My wife

[5]is one of them.

[6]MR. SPEARS: Much to your dismay.

[7]MR. MATEER: Well, much to the court reporter's

[8]dismay.

[9]MR. SPEARS: Okay. Signature is reserved then.

[10](Off-the-record discussion.)

[11]MR. MATEER: I want a mini copy.

[12]MR. SPEARS: I would like the full transcript

[13]plus a condensed and a word index.

[14]MR. MATEER: You would get a word index; right?

[15](Off-the-record discussion.)

[16]MR. MATEER: I want to be sure I have a word

[17]index also.

[18]MR. SPEARS: And for the organization of the

[19]condensed versions, I would like it in sort of newspaper

[20]column format with Pages 1 and 2 being on the left-hand

[21]side of the page and pages 3 and 4 on the right-hand side

[22]of the page. Occasionaly I get one across.

[23]MR. MATEER: Please attach the

copies **[*153] [**153]** of all the

[24]exhibits to each deposition, even if it's just a mini.

[25]( The proceedings concluded at 12:29 P.M.)

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[1]STATE OF CALIFORNIA )
) ss.

[2]COUNTY OF LOS ANGELES )

[3]

[4]I, GABRIEL E. HUNT, JR., M.D., the undersigned,

[5]declare under penalty of perjury that I have read the

[6]foregoing transcript and I have made any corrections,

[7]additions or deletions that I was desirous of making;

[8]that the foregoing is a true and correct transcript of my

[9]testimony contained therein.

[10]EXECUTED this _____ day of _____,

[11]2005, at _____, _____.

[12]

[13]

[14]

[15]_____
GABRIEL E. HUNT, JR., M.D.

[16]

[17]

[18]

[19]

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[24]

[25]

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[1]
REPORTER'S CERTIFICATE

[2]

[3]

[4]I, BITIA AFLALO, CSR 10703, a Certified

[5]Shorthand Reporter, certify:

[6]That the foregoing proceedings were taken before

[7]me at the time and place therein set forth, at which time

[8]the witness was put under oath by me;

[9]That the testimony of the witness, the questions

[10]propounded, and all objections and statements made at the

[11] **[*154] [**154]** time of the examination were recorded stenographically by

[12]me and were thereafter transcribed;

[13]That the foregoing is a true and correct

[14]transcript of my shorthand notes so taken.

[15]I further certify that I am not a relative or

[16]employee of any attorney of the parties, nor financially

[17]interested in the action.

[18]I declare under penalty of perjury under the

[19]laws of California that the foregoing is true and correct.

[20]Dated this 20th day of December, 2005.

[21]

[22]

[23]/s/Bitia Aflalo
BITIA AFLALO, C.S.R. No. 10703 24

[25]

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[1]REPORTER'S CERTIFICATION OF CERTIFIED COPY

[2]

[3]

[4]

[5]

[6]

[7]

[8]BITIA AFLALO, CSR 10703, a Certified

[9]Shorthand Reporter in and the State of California,

[10]certify that the foregoing pages 1 through 150 constitute

[11]a true and correct copy of the original deposition of

[12]GABRIEL E. HUNT, JR., M.D., taken on Thursday, December

[13]8, 2005.

[14]I declare under penalty of perjury under the

[15]laws of the State of California that the foregoing is

[16]true and correct.

[17]

[18]Dated this 20th day of December, 2005.

[19]

[20]

[21]

[22]/s/Bitia Aflalo

BITIA **[*155] [**155]** AFLALO, C'.S.R. NO. 10703

23

[24]

[25]