PROCEEDINGS

ANDREW MEROLA, M.D.,

Called as a witness by the Plaintiff, was first duly sworn or affirmed and testified as follows:

THE COURT CLERK: Please state your name and business address spelling both first and last name.

THE WITNESS: ANDREW MEROLA. 567 First Street Brooklyn, New York 11215.

THE COURT: You may inquire, counsel.

DIRECT EXAMINATION

BY MR. BOTTARI:

Q Good afternoon.

A Good afternoon.

Q Can you briefly give me your professional and educational background? And speak loudly because we have to hear all the way back here.

A Sure. I went to NYU undergraduate. After I graduated from college I went to Howard University Medical School. Graduating from medical school I went to the State University of New York in Brooklyn where I then took up training in general surgery for one year. Then I did four years of orthopedic surgery. So I did a five year residency in orthopedics. Finishing that residency program I went to the University of Colorado in Denver and I did an additional year in what's known as spinal reconstructive surgery. Came back here to New York City in 1996, full-time practice in

orthopedics spinal surgery.

Q Are you what's known as board certified?

A Yes, I am.

Q Can you briefly tell us, we've heard from other physicians and medical professionals, can you briefly tell us what board certification is and what your field of specialty is?

A So, I'm an orthopedic surgeon. So I'm board certified in orthopedic surgery. That's surgery that involves your musculoskeletal, your bones, joints, nerves, all of those things. Specifically in my subspecialty your neck and your back.

Board certification is a process where you take a written examination after your training period is done. So that you pass your general knowledge in your field of specialty, and then after you've been in practice for a minimum of two years, in my case as a surgeon, you then collect all of your patient information on the patients that you've operated upon, and you turn all of that information in your notes, MRIs, operative findings, all these things to an actual Board of Medical Examiners. That they actually ask you verbal questions about what you did and why you did it. And when you pass both parts of that exam, you then become board certified. Then that process repeats itself every ten years. So I was first certified in 1998, then again in 2008 and 2018. And then I'm

do for my next certification 2028. So we maintain our certifications through examinations and staying current with what we're doing in our field of practice.

Q Do you know the difference between a plaintiff and a defendant?

A Yes.

Q You've testified in the past, correct?

A Yes.

Q Have you testified mostly for plaintiffs or for defendants or tell us?

A My patients which are, in general, folks who are plaintiffs.

Q Have you ever met me prior to today?

A Yes.

Q Have you ever testified for the William Schwitzer firm?

A Yes.

Q About how many times over how many years?

A I've been in practice since 1996, so I've been doing this for 23 years I guess or so. I generally end up in court about five or six times a year. And I have testified for Mr. Schwitzer's firm for -- I don't know the exact number but that's generally the extent of my medical legal work.

Q Do you expect to be compensated for your time away from your practice today?

A Yes.

Q And what is the rate?

A $650 per hour for time away my office, the office and hospital.

Q If you weren't here where would you be?

A So, I make rounds in the morning, I have office hours. And then I finish off the office hours the rest of the day on Monday. So I would actually be, I would still be in the office right now doing hours.

Q And we spoke Saturday I think?

A Correct.

Q It was a couple of times I tried to reach you by phone and it wasn't convenient because you were operating?

A Yes.

Q You reviewed records before coming here today?

A Yes.

Q We spoke right before this afternoon, correct?

A Yes.

Q Okay. Now, did that come a time when a patient by the name of German Paucay-Sumba was referred to you?

A Yes.

Q Can you briefly tell me when you first saw him what did he complain of, did you take a history, what did he do?

A Sure. So when you first meet a patient you meet them and I speak with them so that you can get an idea for what's

going on with them. And usually we call that the chief complaint or the presenting complaint, along with a history.

Q By the way, doctor, let me stop you. We've been calling him Mr. Paucay, does he speak essentially Spanish?

A Yes, I do, I'm fluent in Spanish.

Q Continue.

A So, you have a conversation with the patient so that you can try to understand what the problem is. And how it relates to what I as a spinal surgeon might be able to help him with.

So he was referred in July of 2016 when I first saw him. He had given me a history of an accident which occurred on June 19th of 2013. And presented with or came in with symptoms that is pain in both of his neck area and his back area. The neck pain was described as a five out of ten on a zero to ten scale constant. The low back pain was worse, it was seven out of ten on a zero to ten scale.

Both the neck and the back got worse with activities. So activities that we call mechanical activities. In other words, activities that require bending or lifting or twisting activities that put pressure on the neck and back increased those symptoms, increased the pain level.

There are also symptoms of radiating or traveling pain into the extremities, arms and hands, legs and feet. So basically he presented with pain in his neck and his back. The

back was most severe. And the aggravating factors were activities. And they were associated with radiating symptoms or traveling symptoms going down into the legs and feet and also the arms and the hands.

Q Clinically what is the significance of radiating pain going down into the legs or arms and legs in general?

A In general it has to do with the nerves that are involved that travel into your arms and hands and your legs and feet. Because your nerves are responsible for sensation. The way your muscles work, the way your reflexes work and those nerves connect to your brain. Radiating symptoms are generally symptoms that concern us because they involve the nerves in the arms and hands or legs and feet.

Q Did you take what's called a surgical history from him?

A Yes.

Q What, if anything, did he tell you? What's the significance of that?

A Sure. So he had had a surgery to his right knee. And he was also being treated by pain management. So he had some pain management procedures and he had a right knee surgery.

Q Did you do a physical exam on him as part of your general practice?

A Yes, I did.

Q What did you do, what type of exams did you do? What did you find out and what was the significance of any of your findings?

A So because his symptoms involved pain in the spinal area I wanted to assess the pain. So I did some range of motion in the back, for example. And in his back he had spasm, which is an abnormal contraction of the muscles when you're palpating or feeling the muscles particularly when the back is placed into a position that is either uncomfortable or painful.

Q Is spasm something that you can fake?

A No, a spasm is like a charlie horse. It's an involuntary strong contraction of a muscle that you can feel as the muscle turns pretty much like rock hard. So it's an abnormal contraction of muscle tissue. And this was palpable in the lower back with an extension or a backward bend of five degrees. When you are upright you are at zero degree. So beyond zero up to 5 degrees of extension or back bending reproduced spasm in the lower back that was associated with traveling symptoms down into the legs.

That's a maneuver or an examination test called a Phalen's maneuver. It's significant because it is a test that actually increases pressure on nerves. And if those nerves are irritated, the test is positive when you palpate spasm and it reproduces the patient's symptoms. So in this case for the lower back it was a positive test at five degrees of extension.

Additionally to that there was another test done called a straight leg raise test. A straight leg test is a test where you can look at the nerve a little more closely by actually pulling on the nerve that travels down your leg. There is a large nerve that travels down the front of your leg it's called the femoral nerve. And the large nerve traveling down the back, the nerve that goes down the back of the leg is called the sciatic. That runs below your knee and past your ankle and your foot. So if you extend or straighten out the knee joint and the foot and ankle joint and pull on that nerve, if that nerve is irritated and swollen the body will recoiling from you pulling on that nerve. So a positive straight leg raise test is a test that tells you whether or not the sciatic nerve specifically is inflamed or irritated. And in this case the straight leg raise was positive on the right side at 40 degrees. And the left side also had a positive test.

Q Doctor, just so I can get an idea. What is the normal range that a human can do in general if there is no pain on nor damage to a sciatic nerve?

A If you're sitting down upright in a seated position you should be able to fully extend your knee and fully extend your foot and ankle so that that nerve is totally passing down your leg and foot and ankle without producing pain or spasm.

Q Would that be about 90?

A Correct, 90 degrees.

Q So at about 40 degrees this gentleman had some symptoms, some pain?

A Yes.

Q That's not normal?

A Correct.

Q That's symptomatic of a problem?

A That is indicative of a problem, it points to a problem with the sciatic nerve, yes.

Q Please continue.

A The other test was to look for the reflexes that the sciatic nerve works. It specifically works the reflex on the back of your ankle. There is a big tendon that goes down past your ankle joint into your feet, it's called the Achilles tendon. And if you tap on the Achilles tendon the ankle should extend and that's the normal reflex for the ankle's tendon. And in this case it was absent. That's the reflex that is specifically involved with the sciatic nerve. So this also pointed to a sciatic nerve problem.

Q Did you view any MRIs or images studies prior to -- well, once you saw him did you actually see some of the old films that he had taken?

A Yes.

Q What, if anything, did you see and what, if anything, was the significance of what you saw?

A So what I saw on the MRI film was what I described as

a central herniation of disc. The discs are cartilage cushions that sit in between the bones of the spinal column. And the discs should be contained within the borders of the bones. The reason for that is the spinal canal contains the nerves. So if there is anything in the area where the canal is or where the nerves are, it can cause irritation to those nerves by either leaking chemicals down to the nerves that come out of the disc or by putting pressure on the nerves.

So, in a patient that has a herniation or an abnormal protrusion or sticking out of disc material into the canal with these positive findings, the diagnosis here is what we call a radiculopathy, a problem with the nerve root. And as a consequence, a low back disc herniation.

Q I want you to assume that there was a MRI done within a month after the accident of June 19, 2013 and it essentially showed muscle spasm. Do you have an opinion with a reasonable degree of medical certainty what, if anything, or how that correlates to this gentleman's injuries from the six foot fall from a scaffold?

A Sure. The disc being made out of cartilage has two specific parts, there is an outer ring of cartilage that holds an inner jelly-like cartilage in place. How that outer ring are interwoven fibers of cartilage and collagen. For a herniation to an occur there is a tear that happens within those fibers. And so gradually over the course of time, as

you're up and about and walking and putting pressure on the disc, the disc material slows leaks out. The amount of time that it takes for the material to leak depends on the size of the tear. Two things can happen, one, the tear can heal. And sometimes can happens just with time and physical therapy and medications, which is why we often do that when we have patients who have disc injuries or back injuries, because your body can heal a tear just like it can heal a cut or scrape. If the tear does not heal and gets larger and material starts to leak out patients become more symptomatic, which means they have more pain. And then they start to experience irritation in the nerves.

So it's important to look at MRIs over time in patients that remain symptomatic because we want to see if the disc is herniating or not. We want to see if the annular tear is healing or not.

Q I want you to assume there is an MRI of approximately December 2013 that shows a bulging disc at L-5, S-1. What is the clinical significance to you as a surgeon of a bulging disc five or six months later after the original disc showed just muscle strain and muscle spasm?

A So that a bulging disc, when you see a bulge it means that the disc is sticking out asymmetrically, it's coming out of the border of the vertebral column. A herniation is asymmetrical, it's more in one place than another. But now

that you're going from essentially normal MRI with muscle spasm to a MRI showing where the disc is now starting to stick out, it correlates with or it adds up to a annular tear that's not healing with a disc that is progressively getting worse. So it gives you an idea that the lower back disc is continuing to progressively get worse.

Q What if the patient complained of symptoms to a medical facility like eight days later where he said that he had low back pain, pain radiating down his leg, what would the significance of anything like that be?

A Those would be symptoms that are consistent with this sciatic problem for the radiculopathy located in the lower portion of the back. That as time goes on, as you're up and walking and doing your normal activities, increasing pressure on the disc with increasing jelly that leaks out causing increasing nerve root irritation.

Q I want to show you what's been marked as a plaintiff's exhibit and just if you would note the date. This is from Dr. Pappas' physical evaluation. And the date is 6/27/13. Under subjective finding it says -- can you read that for me?

A It says eight forward slash or eight out of ten low back pain.

Q And does it indicate -- and what does it say with regard to the pain, whether it's sharp, intermittent,

consistent?

A It says two things with respect to the pain. Number one, it says that it is a constant pain with radiating.

Q And what does L/S mean?

A Lumbosacral, which is the area of L-5, S-1.

Q I want you to assume that Mr. Paucay went -- what's conservative treatments? Can you define what's conservative treatments?

A Conservative treatment is nonsurgical. So that would involve restricting your activities. So if you were working, restricting work and avoiding activities that reproduce pain, bending, lifting, twisting, that's number one. Number two, medications, that is conservative treatment. Taking medications by mouth or having medications injected into the area where the problem is, that's conservative. And therapy is also conservative. So nonsurgical management would consist of what we call conservative treatment.

Q Now, after your initial visit with Mr. Paucay did you come to some sort of a plan, an impression?

A Yes.

Q What was that?

A So the impression or the diagnosis was sciatic radiculopathy with a herniation visible on the MRI. And at that time what I wanted to look at was some EMGs or nerve testing.

Q Did you actually see certain EMGs that were done?

A I did.

Q What did they show you, what's your impression of that?

MR. SCHNEIDER: Can we have a date?

THE COURT: What documents did you review?

A They were EMGs, two sets of EMGs. Most recent set of EMGs I saw to that physical exam were done in 2015.

Q Do you know if it was Dr. Krishna who did them?

A Yes.

Q So that's what you saw?

A Yes. Like I said, there were two sets of EMGs, an earlier set and a subsequent set in 2015.

Q What did they show?

A So, the EMG is an electrical study of nerves and it shows that there was what we call electrical instability within the nerves of the sciatic nerve, which correlated or added up to this sciatic radiculopathy.

Q Now, you noted that Mr. Paucay was undergoing pain management, correct?

A Yes.

Q Did you make any recommendations at that point in time?

A So let's see. So, in my next visit with him, which was in December of 2016, he was still doing conservative

treatment. He was doing pain management. And at that time I had indicated that I would continue his conservative treatment and then see him back in the office to see what progress, if any, he made.

Q Did he have, whatever his complaints, were they about the same?

A They were essentially about the same pain in the spinal column, in the back, with radiating symptoms into the legs and feet.

Q So, did you prescribe any meds or was he already on medication?

A He was already on medicines.

Q So, did you see him after that second visit?

A I did.

Q And when was that?

A I saw him in January of 2017.

Q What type of an exam, if any, did you do in January of 2017?

A So, I did the same exam to examine the nerves to see if there was any progress or did he remain the same or were there any changes in his overall condition. And on that day the testing, once again, showed a positive what we call Phalen's maneuvers, which is extension reproducing his symptoms, a positive straight leg raise in the legs, and a loss of L-5 and S-1 nerve root sensation which remained pretty much

consistent with his previous exams. So, he had what we would consider, after having seen him on multiple times, a persistent radiculopathy with nerve findings.

Q Did you make any comments on how he had walked?

A His gait pattern or exactly how he walked showed that he did have -- he had a limp, it's an antalgic gait, which means you spend more time on one than the other. All of this are problems with his knees and a kyphotic pattern, which means that walking completely upright reproduced pain. So patients will walk pushed forward a little in order to, once again, over all the canal area where the nerves are, to decrease pressure and pain in the sciatic nerve.

Q Did you do straight leg testing? I'm just trying to speed it up a little.

A He had a positive straight leg raise on that day as well, also at 40 degrees.

Q So clinically he's about the same in terms of where the problems are, lower back?

A Yes, correct.

Q On a clinical basis if you saw him without looking at anything else, what would your opinion be?

A That he had a significant sciatic radiculopathy.

Q At what levels?

A L-5, S-1.

Q Did you see him in April of 2017?

A Yes.

Q Did you start talking to him about surgery at that time or actually before that?

A Actually before that in December, because he had persistent symptoms with nerve deficits L-5, S-1, positive MRIs, positive EMGs. My recommendation at that time in December was for surgery. And we were finally able to discuss that further in April.

Q So his gait was still antalgic or --

A Correct, yes.

Q And his spinal extension was limited?

A Yes.

Q Had pain when you went back a little too far?

A Correct.

Q Did he still have what was called radiculopathy?

A Yes.

Q And just so we're clear, it was going down his leg?

A Yes.

Q So at some point in time, doctor, did the patient consent to surgery and did you do surgery on him?

A I did, yes.

Q What type of surgery did you do, in English and then we'll use some blowups to try to aid the jury in understanding what you did.

A Surgery is generally what we call decompression. The

nerve is inside of a spinal canal and in the case of a herniation there is an increase in pressure inside the canal on the nerve. So the procedure is a decompression, a release of pressure on the nerve. And that's done by opening the canal and then actually removing the piece of disc material that is causing the pressure. Technically it's also known as a laminectomy, which means an opening of the canal and a partial discectomy. In other words, a removal of that portion of disc material that is causing the pressure to the nerve.

Q Now, you actually went into Mr. Paucay's back, correct?

A Yes.

Q There has been some comments that some of the MRIs early on did not show bulges or herniations, correct?

A Yes.

Q What did you find when you went inside of Mr. Paucay's back in May of 2017?

A Sure. So the operative findings, in other words, what we're actually able to see, was a torn annulus, which is the area through which the herniation had occurred, which is exactly where I was able to remove the herniated disc material.

Q Did you actually remove herniated disc material?

A Yes.

Q What is the result to someone's back if you take out an area of herniated disc, does it relieve pain or pressure?

A So, removing of the disc material takes the pressure off the nerve and prevents the nerve to continue suffering any further damage. Removal of the disc material can decrease that nerve radiating symptoms by getting the pressure off the nerve. And number two, it can prevent further damage to the nerves.

So if the nerves are not working normally for using your reflexes and some loss of sensation, we can prevent the legs from becoming weak and we can preserve the ability to walk; that's the reason to do the surgery.

Q You actually saw and document, you had documented in the operative report taking out the herniated disc material?

A Yes.

Q You send that to the lab for review or whatever?

A Yes.

Q Did you notice any areas of granulation or anything like that when you were in his back?

A So, when you have a herniation that is removed you can see that that herniation -- granulation essentially means inflammation or inflammatory changes which are consistent with the area where the herniation is. And those are generally visible as areas of irritation in and around where the herniation is.

Q So you actually saw that there also?

A Yes.

Q What is the clinical significance of that?

A It goes along with an inflammatory nerve condition secondary to a disc herniation with an annular tear.

MR. BOTTARI: With Your Honor's permission I would like the doctor to come down and if we have an easel we can put them up.

THE COURT: I don't know if we have an easel.

MR. BOTTARI: I can hold them.

JUROR #1: There is an easel in the jury room.

THE COURT: There is?

(Pause)

Q Doctor, I'd like you to try to explain the operation you did to Mr. Paucay with the aid of these illustrations. First let me ask you this, you've seen these illustrations before today, correct?

A Yes.

Q Are they a fair and accurate representation of the surgical procedure that you performed on Mr. Paucay?

A Yes.

Q Do you think that it would help you in telling the jury what you did by referring to them?

A Yes.

Q Okay, could you please use these two blowups 22 A and B and go through the surgery that you performed on Mr. Paucay on May 17, 2017?

A Yes.

Q By the way, where was the surgery done?

A New York Presbyterian, Lower Manhattan Hospital.

Q Go ahead, doctor.

A So the top portion of this illustration is a diagram showing the lower back. The squares are the bones. And in between the bones are the individual discs. And the nerves are to the left of where the bones and the discs are. The top two A and B are side views of the lower back to get an idea of how the spine lines up in a side view. C is a back to front view illustration of the lower back. And it illustrates the incision or the opening in the skin that is necessary to be made over the lower back in the area where the two bones, L-5 and S-1 are located.

So the first portion of the actual surgery itself, after the patient has had a general anesthesia, is to make an incision in the lower back and to move the muscles away so that the bones themselves can be exposed. And the lower illustration D shows the muscles being retracted and the exposure of the L-5, what is known as the lamina or covering of the spinal canal or the S-1 lamina of the covering of the spinal canal between L-5 and S-1. Once the area, local area has been located, and the way we do it is take an X-ray during the surgery and we compare that X-ray with the MRI film so we know our exact location. Once we're satisfied that we're at the exact location we need to be at, we can then proceed to

remove portions of the lamina. And we do that by basically drilling away the bone and we make it thinner and thinner and thinner until we see the opening of the spinal canal. Once we can see the opening of the spinal canal we can then directly look at the nerves. And then move the nerve away from the area where the herniation is.

So we mobilize or move the nerves away from the area of the disc so we can then visualize the disc itself. And in looking at the disc we can see that there is an area that is sticking out abnormally into the nerves of the L-5 and S-1 nerve roots which make up the sciatic nerve. And we can see that there is a tear in the area of the outer covering of the disc.

Q Is that the annular that you're talking about?

A Yes. Now, once the disc itself is identified and we have safely moved the nerves out of the way, we can then remove the disc material that has herniated onto the nerve itself. So we can directly visualize and then remove that material with a special device that is designed to pick it away from the nerve safely. Once that's been done we then both look at the nerves and feel the area where the nerves are to make sure that there is no remaining pressure on the nerves and no remaining disc material on the nerves.

So this is the entire procedure of taking the pressure off the nerves and removing the fragment of disc

material that was compressing the nerves.

Q Thank you, doctor. You can resume your seat.

(Witness resumes stand)

Q Now, doctor, did you then do what's called a post-op visit with Mr. Paucay?

A Yes, I did.

Q And when was that?

A So that was after the surgery was done and the date of that was June 12 of 2017.

Q By the way, I'm going to show you part of the New York Presbyterian Hospital records which are in evidence. Is there what's called a postoperative MRI performed?

A We did a postoperative MRI as well, yes.

Q Can you tell us what it showed, when it was done and what it showed with regard to Mr. Paucay?

A Sure. So the postoperative MRI tells --

MR. SCHNEIDER: What's the date? I'm sorry.

THE WITNESS: The date of this MRI was May 18, of 2017.

Q That's the day after the surgery?

A Correct, this is the first operative day. It shows the laminectomy between L-5, S-1, it shows the normal amount of fluid that you could expect is in that area where the disc was removed. Because once you remove the disc that area of the space that's left behind fills up with fluid. Your body will

generate fluid through your own normal healing abilities in order to heal over that area with some scar tissue. So if you scratch your skin and there is an opening in your skin, you'll notice that the skin bleeds and gets weepy. Those are the fluids that your body secretes to heal that area with the scar.

It's the same thing when you have to remove that disc, it fills up with fluid in the area where the disc was removed in order to go through the normal healing processes, and that's basically what the MRI shows.

MR. BOTTARI: For the record I wanted to have a copy of the operative report marked separately so we can refer to it. A letter, what's it? 13 A.

(Plaintiff's Exhibit 13 A received in evidence)

Q Is it your practice to have a, what's called a post-op visit for someone who has laminectomy?

A Yes.

Q How long after the surgery do you see them?

A I usually see the patient a week or two after the surgery.

Q By the way, is the patient given additional pain killers while they are in the hospital or get out of the hospital because of that type of a surgery?

A Yes.

Q That's standard?

A Yes.

Q When was your post-op visit? What did you test for, what did it show and what was the clinical significance, if any?

A June 12, 2017, saw the patient back in the office to make sure that he was healing from actual surgery itself. Postoperatively he had some what we call urinary retention, which is some difficulty with his ability to urinate, which can generally come from one of two things, usually comes from the medications the anesthetic and the pain medications result in difficulties with your urinary process.

Muscles that contract and relax because urination can sometimes be a problem after. And he had some urinary retention which was getting better. And I did an examination on him to make sure that the incision, the area that was operated upon was healing properly and that his nerves were in proper order. And indeed, the incision was healing and he was what we call neurologically stable, that is no progressive neurological problems were appreciated.

Q Did you make any comments with regard to his gait?

A Yes, he was able to walk with both legs, what I call bilateral heal to toe, which means that the nerves in the legs were working properly.

Q Was this an improvement over his antalgic gait?

A Yes.

Q So, some of his surgery worked?

A Yes.

Q Did you give an opinion as to if he could start physical therapy?

A Yes, I said that he could start therapy as long as he felt comfortable to do so. Sometimes the therapy can be a little painful after surgery. So I generally let patients know they can start physical therapy as long as they can tolerate getting to therapy and it's not too painful for them.

Q When did you see him again?

A I next saw him in August of 2017.

Q Did you ask him if he had any complaints?

A He had no new complaints. So basically just some of what we call mechanical symptoms, the pain in the neck and back areas. Nothing new appreciated at that time.

Q Did you make any comments with regard to his care, physical therapy, medications, things like that?

A I said that he should continue all of his other treatments as needed and necessary.

Q Did you see him after that point in time, for example, in January of 2018?

A Yes, I did.

Q What, if anything, were his complaints, what is clinically significant, please tell us?

A Stiffness in his neck and back areas. The back was stiff which was consistent with his preoperative findings as

well. And on his physical exam he did have to -- he reverted back to that antalgic and kyphotic gait. And I tested his overall range of motion at that time and found that it was about 40 percent of normal, normal for his entire spine.

Q Did you continue his physical therapy prescription?

A I did, I thought he should continue his therapy, yes.

Q Did you see him again after that?

A Yes.

Q When was that, sometime in April?

A April 2nd, 2018.

Q Did he explain about stiffness?

A Yes, he did have persistent stiffness. And one of the things we specifically spoke about, bending forward, putting on shoes and socks, to do that maneuver did cause an increase in stiffness and pain.

Q When was the last time you seen him or the next time?

A I saw him in November of 2018.

Q What, if anything, were his complaints about at that time?

A Essentially the same complaints, which are what we call mechanical axial pain, pain in the neck and back aggravated with activities consistent with prior disc herniations, that is typical with patients with a disc problem. He had no new complaints. Continued to have difficulty, for example, with his ability to bend over and, once again, for

example, the most common thing he might do, bending over, putting on shoes and socks and indeed, that is something that reproduced pain.

Q Is that the last time that you saw him, doctor?

A Last -- yes, that is.

Q Do you have an opinion with a reasonable degree of medical certainty if the accident of June 19, 2013 was a substantial factor in causing the herniations and the back problems that you saw, clinically diagnosed on various MRIs and various other scans, including EMGs, which ultimately resulted in you doing a surgical procedure on him?

A Yes, I do.

Q And what is that opinion?

A My opinion is that the accident of June 19 of 2013 caused the L-5, S-1 herniation with radiculopathy requiring the surgery.

Q What's the basis of that, just so we have it for the record?

A Well, my treatment of the patient which includes my operative and surgical findings. And, of course, an extensive review of his records and treatment since the time of the accident.

Q Do you have an opinion with a reasonable degree of medical certainty of what Mr. Paucay needs in the future?

A Sure.

Q With regard to your specific profession, that being orthopedic surgery?

A Yes.

Q And what is --

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

A So, patients who are young and younger patients can often times, not always, but often times have more of a problem than older patients can. Post-traumatic disc herniation is with persistent back symptoms, axial symptoms, pain in the back. The discs that are herniated or damaged have a tendency to wear down and that wearing down process can cause and often times causes as you get older a problem with the joints of the lower back that eventually end up requiring a process called fusion, also known as arthrodesis, which basically means having to stabilize the lower back at some point in the future.

Q Do you have an opinion with a reasonable degree of medical certainty as to whether Mr. Paucay would need a lumbar fusion or an arthrodesis at some point in the future?

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

A Generally you see post-traumatic disc space clasp and arthropathy or joint problems occur somewhere in the neighborhood of about seven to ten years of when you last operated on them. And that's the best educated guess that we

can have for someone. Sometimes it's a little more, sometimes it's a little bit less. A lot of it depends on wear and tear and treatment as time goes on.

Q What is the approximate cost of the surgery in today's dollars?

A So those surgeries, taking into consideration the hospitals and the inpatient stay and implants that are involved in doing this kind of procedure all total, you're looking in the neighborhood of $125,000.

Q And if this procedure is performed ten years down the road could it cost more than that?

MR. SCHNEIDER: Objection.

THE COURT: Sustained.

THE COURT: You want to approach?

MR. BOTTARI: Sure.

(Discussion held off the record at the bench)

Q Doctor, ten years ago did medical procedures cost less than today?

A Yes.

Q Do you anticipate that in ten years medical procedures will cost more than today?

MR. SCHNEIDER: Objection.

THE COURT: Why don't we talk about this particular procedure.

Q This particular type of procedure, have hospital

costs gone up over the last ten years?

A Yes.

THE COURT: What did this surgery cost ten years ago?

THE WITNESS: In the neighborhood of between 75 to a hundred thousand.

Q So, would it be a fair statement, doctor, that with a reasonable degree of medical certainty that this procedure will cost more in the future ten years down the road?

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

A Given that history of cost, yes.

Q You have no specific number but except it will cost more, correct?

A Yes.

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

Q Now, are there other types of things that in your opinion Mr. Paucay will need from an orthopedic point of view or neurological?

A Yes.

Q And what is that?

A So, in order to generally monitoring patients over time, we follow them up with X-rays and MRIs every year to two depending upon how many more symptoms they are having. So, new

symptoms over a shorter period of time, more diagnostics. So, from an orthopedic perspective we look at MRIs and X-rays every one to two years.

Q And how much are they about?

A X-rays are about 125 for a lumbar series. MRIs are generally a thousand.

Q Do you recommend physical therapy for this patient?

A Yes, sure.

Q How often?

A Well, what we consider maintenance therapy which is done on a weekly basis.

Q One time a week?

A Sure.

Q What is the cost of that, approximately?

A Depending on how long the treatment session is, but they are generally between 75 and a hundred per session.

Q You also recommended lumbar epidural steroidal injections?

A Yes.

Q How often?

A Quarterly or sooner depending upon symptoms.

Q And what's the cost of those?

A Generally several thousand for an injection.

Q That's just for the injection?

A Yes.

Q That doesn't include the hospital or anything else?
A Right.
Q Given what you've seen in terms of Mr. Paucay's records, the surgery that you've done on his back, the fact that he's undergone physical therapy and your post-op visits, do you have an opinion with a reasonable degree of medical certainty if the injuries to Mr. Paucay are permanent?
A Yes.
Q And the treatment that you've indicated that he needs, is that for a few years, lifetime or what?
A Lifetime treatment.
Q That's with a reasonable degree of medical certainty?
A Yes.

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

MR. BOTTARI: I have nothing further.

THE COURT: Counsel.

CROSS-EXAMINATION

BY MR. SCHNEIDER:

Q Good afternoon, doctor.
A Good afternoon.
Q Just as a general question, can you have a bulging disc in your back and have it give no symptoms?
A Yes.
Q And same question with a herniation, could you have a

herniated disc in your back and not have any symptoms?

A Yes.

Q And symptoms are something that you learn from patients, correct?

A Yes.

Q When you see the patient you examine them and you talk to them and you get an understanding of what it is that they're complaints are, right?

A Yes.

Q Symptoms such as pain is a subjective symptom, correct, that's something that the patient tells you?

A Yes.

Q I want to just ask you briefly, doctor, about motivation. You see patients in your practice who aren't plaintiffs in personal injury litigation, correct?

A Yes.

Q You see patients in your practice who just come to you for treatment, right?

A Yes.

Q Would it be a fair statement to say that there might be different motivations for different patients in different settings?

A Yes.

Q In terms of the motivations for someone who is a plaintiff in a personal injury setting, when you get these

subjective complaints and these subjective symptoms, would it be fair to say that something you want to do is test objectively whether you believe they're valid?

A Yes.

Q One of the things -- so when you first examined Mr. Paucay back in June of 2016 and then again in January of 2017, one of the things I think that you mentioned that you really wanted to see was whether there was EMG studies, right?

A Yes.

Q And EMG studies, is that with needles get put on certain areas of a person's body?

A Yes.

Q The point of that is to test to see whether there is actually any radiating pain going to certain areas where there is a radiculopathy?

A Electrical instability, yes, or nerve root death causing electrical instability.

Q That test, an EMG test is a way to test for radiculopathy, correct?

A Yes.

MR. SCHNEIDER: If we can have the Pappas I'm going to have the EMG marked.

(Plaintiff's Exhibit 6 A received in evidence)

Q I'm going to ask you to take a look at what I've just provided you that's marked as Exhibit 6 A.

A Yes.
Q Do you recognize what that is?
A Yes.
Q And what is it?
A This is an EMG of the lower extremities done by Dr. Pappas.
Q And the lower extremities, so if someone has a L-5, S-1 problem, the lower extremities would be what you would be testing, correct?
A Yes.
Q You wouldn't test the arms because that would be if you had a neck problem, correct?
A Yes.
Q And you had reviewed Dr. Pappas' records when you saw Mr. Paucay, correct?
A Yes.
Q Dr. Pappas when he did the EMG, would it be a fair statement that he did not find any evidence of radiculopathy, correct?
A Yes.
Q That's correct?
A Yes.
Q Thank you. And what's the date of that EMG?
A This is August 27, 2013.
Q Which is about two and a half years, almost three

years before you first saw him, correct?

A Yes.

Q You saw him, Mr. Paucay.

I'm also going to ask you if you can take a look at a MRI.

MR. SCHNEIDER: These have already been marked in evidence as Lenox Hill Hospital records and Doshi. They are marked as Plaintiff's Exhibit 2 B, is that right?

MR. BOTTARI: No objection.

Q Doctor, I'm going to show you a document that's been marked as Plaintiff's 2 B and it looks to be a MRI of the lumbar spine down at Doshi Diagnostic?

A Yes.

Q It looks like it's issued to Dr. Pappas who had been treating Mr. Paucay initially?

A Yes.

Q And you see it's done by a radiologist, correct?

A Yes.

Q Who is the radiologist?

A Michael Green.

Q According to radiologist Michael Green that MRI did not show any evidence of either a bulge or a herniated disc at any level in Mr. Paucay's back, correct?

A Yes, correct.

Q That was about three years before you saw Mr. Paucay,

correct?

A Yes.

Q You said that before you had done the surgery you had seen a MRI that showed a central disc herniation?

A Yes.

Q What MRI is that?

A That was the MRI that was done after the Doshi MRI.

Q Was it also done in 2013?

A I believe so, yes.

Q Was it the one that was done in December of 2013?

A Yes.

MR. SCHNEIDER: Can I have that marked as 2 C.

THE COURT: Have you seen, it counsel?

MR. BOTTARI: No objection.

Q Doctor, I'm going to ask you to take a look at a document it's from I think Lenox Hill Radiology.

A Yes.

Q And that's an MRI also of the lumbar spine that was done December 10, 2013?

A Yes.

Q And who's the radiologist, who did that one?

A This is Dr. Himelfarb [phonetic].

Q That MRI, is that the one that you said showed the central disc herniation?

A Yes.

Q Now, does Dr. Himelfarb say that there is a central disc herniation?

A No.

Q Would it be fair to say that Dr. Himelfarb actually reads this as, reads the MRI as showing that there is, the lumbar vertebral bodies are normal in size and shape without evidence of fracture or suspicious intrinsic lesion. There is no evidence of a spondylolisthesis, there is no significant loss of height in the lumbar disc. There is a posterior disc bulge at L-5, S-1?

A Yes.

Q Were there any other MRIs that you looked at before you performed the surgery?

A No.

Q And the surgery was that 2017, correct?

A Yes.

Q When you performed the surgery in 2017 that you described to the jury, you found a herniated disc, correct?

A Yes.

Q When you examined Mr. Paucay initially you had mentioned that his reflexes were absent, do you remember saying that?

A The Achilles reflexes, yes.

Q And the Achilles reflexes absent would be the opposite of -- doctors use the word "two" with a plus sign,

that would be a positive reflex?

A Yes.

Q Did you review the records of Dr. Ari Lerner?

A Yes.

Q And Dr. Ari Lerner was here earlier today, did you know that?

A No.

Q I'm going to show you a record from Dr. Ari Lerner that is from June of 2016, around the time when you said that the reflexes were absent. I'm going to ask if you could just take a look Dr. Lerner's record on page three at the end of his neurological examination.

A Yes.

Q So, do you see at the end of his neurological examination he does the same testing of the reflex?

A Yes.

Q Would it be fair to say that he found the exact opposite of what you said you found also in June of 2016, correct?

A Well, I actually saw him in July of 2016, but in Dr. Lerner's note of 2016 in June he said two plus.

Q So, a month earlier he was saying that the reflexes were normal and a month later you were saying that they were absent, correct?

A Yes.

Q You had mentioned that Mr. Paucay had an antalgic gait?

A Yes.

Q You said that's when someone doesn't use one side of their body, it's a limp in layman's terms, when somebody limps?

A Yes.

Q When you had seen Mr. Paucay it was approximately three years, right, after the accident?

A Yes.

Q And did you take any measurements for atrophy of his legs?

A No.

Q At any of your visits did you ever measure his legs to see if he had atrophy?

A I didn't appreciate any gross palpatory abnormalities so I did not measure for atrophy, no.

Q When you saw Mr. Paucay in August of 2017, in June of 2017 in your postoperative visits, I'm just going to direct you to those two reports from June 12 of 2017. I may have said '16, sorry. June 12 of 2017 and August 14th of 2017, do you have those reports?

A Yes.

Q When you saw him at each of those days one of the things that you say in your physical examination, if you look at the second line, you say mentation and affect are

appropriate?

A Yes.

Q And you say that on both occasions, correct?

A Yes.

Q And also in advance of the surgery that you performed that you showed the diagrams earlier to the surgery, you had issued a report where you said that you explained both the risks of the procedure, the benefits of it, you went through the whole thing with Mr. Paucay himself, correct?

A Yes.

Q And you saw no reason why Mr. Paucay didn't understand what you were saying to him, correct?

A Yes.

Q You believed that he gave you his understanding that he was able to understand what the risks and benefits were, correct?

A Yes.

Q And you mentioned that he's going to need X-rays. How many X-rays do you say that he's going to need for the rest of his life?

A We generally do them about every one or two years depending how they are from surgery or what their symptoms are.

Q Has he had any X-rays yet?

A We haven't done any post-ops yet, we haven't done a fusion yet and we're not at that seven to ten year timeframe,

so we haven't done any post-ops.

Q So the X-rays you were talking about wouldn't even start until seven to ten years out?

A Correct.

Q Those X-rays that you were talking about, are you saying that with a degree of medical certainty that he's going to require an X-ray or two every two years for the rest of his life for sure?

A Yes.

Q Without a doubt?

A Yes.

Q No matter what happens?

A Well --

Q What if he feels better?

A I wouldn't anticipate that he would feel better. Based on the facts that I have available now I would say every two years.

Q The MRIs you talked about, you said that he would need a MRI once every two years?

A Yes.

Q Has he had that?

A He had the post-op MRI which we did at surgery, so that was '17; this is 2019. So within the next year or so he would need a post-op MRI as well.

Q The epidurals that you talked about that he had, you

said quarterly, correct?

A Yes.

Q So that would be four a year. And you're talking about his lumbar spine?

A Yes.

Q So four a year for the rest of his life?

A Yes.

Q And how many epidurals has he had yet?

A I don't know. I don't know because Dr. Lerner is doing the pain management.

Q So if Dr. Lerner testified, this morning testified that he had one, would you dispute that or disagree with that?

A No, I will not.

MR. BOTTARI: Objection.

THE COURT: Overruled.

Q So, he's had one and it's your testimony that for the rest of his life, and earlier we were using 45 more years as where we were going with that, four per year would be approximately 180 epidurals that he's going to need for sure for the rest of his life, but he's one so far?

A Yes.

MR. SCHNEIDER: I have nothing else.

THE COURT: Redirect.

REDIRECT EXAMINATION

BY MR. BOTTARI:

Q Doctor, are MRIs a hundred percent foolproof?

A No.

Q Is there literature that you're aware of that gives a range of how good they are?

A Well, there are what we call probabilities. The test, every test has a sensitivity and a specificity. Sensitivity is the ability of the test to pick up the condition that you're looking for if it's that sensitive. Specificity is how specific it is to picking up, for example, a herniation. The best tests are somewhere in the plus 90 percent range because no test is a hundred hundred for each of sensitivity or specificity because all tests have some shortcomings.

Q So you're aware of literature that says that there is false positives and false negatives for MRIs?

A Correct. That's why none of them are a hundred percent sensitive or specific.

Q When you went into his back you saw a herniated disc?

A Yes.

Q And you took it out?

A Right.

Q And you saw a ruptured annulus?

A Yes.

Q You saw granulated tissue, correct?

A Yes.

Q Now, with regard to this test on Mr. Paucay's ankle,

if it was the knee is that like the cartoon thing, you hit with a hammer?

A You use a hammer or there is several things you could use as long as the device is hard enough to be able to hit the tendon without causing pain.

Q Do you know how much medication Mr. Paucay was on when he underwent that test?

A No.

Q Can medication sometimes mask a reflex or a pain?

A Sure.

Q Do you know if he was on an Oxycodone type of pill or Fioricet?

A I know that he does take medicines but I don't specifically on any given day.

Q That can affect the way someone reacts to a test like that?

A Sure.

Q And when you were asked about whether, in fact, you explained the risk of surgery to Mr. Paucay, correct?

A Yes.

Q Did he ever tell you that he wanted the pain to go away?

MR. SCHNEIDER: Objection.

THE COURT: Sustained.

Q Well, without the surgery he would have been in the

position he was when you first saw him in the middle of 2016, correct?

MR. SCHNEIDER: Objection.

THE COURT: Overruled.

A Yes.

Q Would it be a fair statement that he's had some benefits from the surgery?

A Yes.

Q Would it be a fair statement that he's never going to be pain free from the surgery?

MR. SCHNEIDER: Objection. Also beyond my cross.

THE COURT: I will allow that one last question. You can answer that, doctor.

A Yes.

MR. BOTTARI: I have nothing further.

THE COURT: Doctor, you're excused. Thank you.

(Witness excused)

THE COURT: Anything else?

MR. BOTTARI: Can we approach?

THE COURT: You want to come up?

MR. BOTTARI: Yes.

(Discussion held off the record at the bench)

THE COURT: Ladies and gentlemen of the jury, we're finished for today. And because I have other

matters that I tend to on certain days, Tuesdays, so we're not going to be working tomorrow. We will be working a full day Wednesday. So usual admonishments, don't talk about the case among yourselves or with anyone else. Don't think about the case. Don't do any research. We'll see you back here on Wednesday at 9:30, please. Thank you.

COURT OFFICER: All rise.

(Jury exits)

(Court stands in recess until Wednesday, February 6, 2019 at 9:30 a.m)