IN THE COURT OF COMMON PLEAS

FOR THE COUNTY OF CUYAHOGA, OHIO

KEVIN KISS, et al.

Plaintiffs,

vs. Case No.

THE CLEVELAND CLINIC CV-402-393

FOUNDATION

Defendants.

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Oral deposition of PETER J. SAVINO, M.D., taken at the offices of PETER J. SAVINO, M.D., Wills Eye Hospital, 900 Walnut Street, Philadelphia, Pennsylvania, on Tuesday, October 30, 2001, at 3:17 p.m., before Rosemary Locklear, Registered Professional Reporter, Certified Shorthand Reporter (NJ), Certified Realtime Reporter and Notary Public, pursuant to notice.

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APPEARANCES:

On behalf of the Plaintiffs:
Becker & Mishkind Co., LPA
by, JEANNE M. TOSTI, ESQ.
Skylight Office Tower
Suite 660
1660 West 2nd Street
Cleveland, Ohio 44113
216.241.2600

On behalf of the Defendant:
Roetzel & Andress Co, LPA
by, ANNA MOORE CARULAS, ESQ.
1375 East 9th Street
Suite 1000
Cleveland, Ohio 44114
216.615.7401

PETER J. SAVINO, M.D.,
having been duly sworn, was examined and testified as follows:
BY-MS.CARULAS:
Q. Would you please state your full name for the record.
A. Peter Joseph Savino.
Q. Dr. Savino, we've already been introduced. My name is Anna Carulas, and I represent the Cleveland Clinic in this action.
You've had your deposition taken before; correct?
A. Yes.
Q. So you understand you need to answer everything verbally for our court reporter. Okay?
A. Yes.
Q. If you don't understand one of my questions, please tell me that and ask me to rephrase it. Okay?
A. Yes.
Q. If you answer something, I'll assume you've understood it. Fair enough?

A. Fair.
Q. Now, I appreciate you giving me your most recent CV, and I'm not going to spend a lot of time going through your background because it's all set forth there.
If you'd be kind enough Just to tell me, though, what does the average week for Dr. Savino entail? Give me a rundown of if there's something you do on Mondays, Tuesdays, in general, what your week entails.
A. Yes. Because I'm at two different offices during the week, my week is split. Monday morning I see patients at my other office at Graduate Hospital, where I'm the chairman of ophthalmology, and Monday afternoons I do surgery there. Tuesday mornings I see patients at Wills Eye Hospital and Tuesday afternoons I either see patients like I was doing now or do surgery here. Wednesday morning I see patients at Wills and run a lunchtime clinic for the residents and the neurologists at

Jefferson and whoever else wants to come, and then Wednesday afternoon is an administrative afternoon for me. Thursday morning I see patients at Wills Eye Hospital and in the afternoon is an administrative afternoon or I'll do surgery rarely on those days. Friday morning I see patients at Graduate Hospital. Friday afternoon I see patients at Wills Eye Hospital.
Q. So as far as dividing up your time between administrative activities and clinical practice, what would that split be?
A. Well, theoretically, it's two half days a week administrative but, unfortunately, the patient care spills over into the administrative days and I wind up doing a lot of the administrative stuff after 5:00.
Q. At home or after hours.
A. Yes. Exactly.
Q. Now, I know that you have a subspecialty of neura-ophthalmology, Is your practice 100

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percent neuro-ophthalmology or do you do some what would be considered general ophthalmology as well?
A. I do some general ophthalmology, particularly at Graduate Hospital, where I'm the chairman of ophthalmology, but -- so I do both, yes.
Q. If you were to split it up in a percentage time, what percentage of your clinical practice would be neuro-ophthalmology?
A. Probably 60 or more percent.
Q. Now, do you see pediatric patients?
A. Yes.
Q. And you also see the adult population as well?
A. Yes.
Q. How would you split that up as far as your practice percentage-wise?
A. Many, many more adults, just because that's the way of the practice is.
Q. So would that be 90 percent adult?

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A. Probably.
Q. 90 percent. Okay. All right.
And are there pediatric ophthalmologists on staff at the Wills Eye Hospital?
A. Yes. We have an entire department of pediatric ophthalmologists.
Q. And are there some circumstances where there's an overlap between the practices of the pediatric ophthalmologists and yourself?
A. Well, there are patients who are referred in to the pediatric ophthalmologists that wind up having neurologic problems so they're sent to me, and there are patients who are sent to me as having neurologic problems who just end up having straightforward crossed eyes and I send them to them. So yes, there is.
Q. Can you tell me how often you get involved in reviewing medical-legal cases such as this?

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A. Well, I may do it about eight to ten times a year.
Q. And for how many years have you been doing that?
A. Probably 10 or 15.
Q. Can you give me an idea across the United States different states where you've actually reviewed cases for attorneys?
A. Yes. Pennsylvania, North Carolina, Ohio, Illinois, New York.
Q. Do you have any idea as to the split between reviewing cases for defendant physicians or hospitals or -- as opposed to reviewing them on behalf of the patient, plaintiffs?
A. It's probably about -- it's about even.
Q. Okay.
A. Except in one case, when I was the expert for both sides.
Q. And how did that come about?
A. It was a federal issue here of -- in New Jersey where an employee, a doctor employee of a hospital, was

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riding in an ambulance and the ambulance was involved in an automobile accident across state lines, and I saw the patient and both sides agreed that I was -- could be the expert for both sides so the judge allowed it so...
Q. That's unique.
A. Yes.
Q. Do you have actually a fee schedule, any type of a printed fee schedule for matters such as this?
A. Yes.
Q. Is that something that you would provide to Miss Tosti so I could have a copy of that?
A. Absolutely.
Q. Have you kept a bill so far, any type of a billing statement as far as how much time you've devoted to this case?
A. I hope so.
Q. Would you be kind enough to when you find the printed-out fee schedule also provide Miss Tosti with the bill statement you have so far so I

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can have that?
A. Yes.
Q. Now, do you know how it is that Miss Tosti or her firm found you for this case?
A. No.
Q. Have you ever worked with either of them before?
A. Not that I'm aware.
Q. Have you reviewed cases for Ohio attorneys before this?
A. Yes.
Q. Any names that come to mind that you can recall?
A. It was a case where I was the expert witness for the Cleveland Clinic.
Q. Besides that case where you were on the flip side, defending the Cleveland Clinic, have you ever reviewed any other cases for Ohio lawyers?
A. I'm not aware. There may have been one, but not that I can recollect.
Q. Have you ever been involved

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in a medical-legal case with issues similar to the case we are dealing with in this case?
A. Yes.
Q. And whereabouts was that case or cases?
A. Oh, Illinois, Pennsylvania. You know, papilledema is something that we get involved in frequently.
Q. Do you keep a record of cases that you've reviewed over time or does your secretary?
A. She does. I don't know how far back they go because I have changed secretaries over the years.
Q. But you have something that would reflect perhaps the most recent years?
A. I do, but I don't know how recent they were.
Q. Okay.
A. I can look.
Q. If you'd be kind enough to look for that as well and send that to Miss Tosti, I would appreciate that.

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Do you get involved in reviewing local cases for here in Philadelphia?
A. I have done, yes.
Q. Are there any particular attorneys that you can recall that you have reviewed cases for?
A. Beasley's group, and there's another group that's a defense group. Beasley is a plaintiffs' attorney, and there's a defense group that I've done two or three cases for. I don't remember their names offhand but I'm sure that my office manager has it. Wolf Block Segal is a plaintiffs' attorney.
Q. Can you give me an idea in a given year how many depositions you would give?
A. Probably five or six. Not all the reviews come to depositions.
Q. And as far as testifying in court, approximately how many times have you done that?
A. Maybe three or four.
Q. This case is actually set to go to trial in February.

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Do you have plans to come to Cleveland or will Jeanne and I be traveling back out here again?
A. No. I love Cleveland in February.
Q. It is the spot to be. All right.
Now, can you tell me when you were first contacted in this case?
A. I don't know.
Q. Who was it who contacted you?
A. I don't know that either.
Q. Do you know whether you had an initial telephone conversation or if it was something that was done more from an administrative standpoint and then they sent materials to you?
A. Things are usually done the latter, and what I do is I look and see if it's something that's in my area of expertise. If it's not, I just say no, and then if it is, my office manager makes whatever administrative arrangements have to be made.

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Q. So I've looked through as best as I could very briefly the materials you've reviewed. It looks -- either you can go through and tell me for the record what you've reviewed or I can help you as we go through here, but it looks as if you have a stack --
A. I've reviewed everything at one point or another. I've looked at everything in that stack.
Q. So what we have here would be --
MS. TOSTI: I think he would prefer if you leave them in the order he has them.
MS. CARULAS: This is in order?
MS. TOSTI: He had them in an order that he wanted to keep them in.
MS. CARULAS: Oh, I'm sorry.
THE WITNESS: You should see my desk.
MS. TOSTI: So go ahead

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and look through them but please keep them in the order that he put them in because they -- apparently, his thoughts are organized according to that sequence.
MS. CARULAS: Oh, okay. No comment on that. All right.
BY MS. CARULAS:
Q. So it looks as if you were provided with medical records from the Cleveland Clinic Foundation.
A. Yes.
Q. Do these include all inpatient and outpatient, to your knowledge?
A. I don't know if they're all. You can look through them and then you can change the order. It doesn't really matter. I mean, we can deal with it later. But those are the records that I have.
Q. Okay. All right. So we have a stack of --
A. I don't know what that is.
(Interruption for a telephone call.)

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(Discussion off the record.)
BY MS. CARULAS:
Q. So we have the stack of Cleveland Clinic records.
A. They're not only Cleveland Clinic records.
MS. TOSTI: There are some tabs here that may be helpful to you.
THE WITNESS: There are also a private ophthalmologist's records, there's some records from a children's hospital, the Kid's Rainbow --
MS. TOSTI: Kids In The Sun.
THE WITNESS: Exactly. -- in there.
MS. CARULAS: Okay.
BY MS. CARULAS:
Q. Then it looked as if you have the records of Dr. Jeffery, Amy Jeffery.
A. Yes.

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Q. You've reviewed the deposition of Dr. Luciano?
A. Yes.
Q. And the deposition of Mrs. Kiss?
A. Yes.
Q. And the deposition of Dr. Kosmorsky.
A. Yes.
Q. Have you reviewed the deposition of Dr. Cohen, Bruce Cohen?
A. If it's not here, I haven't reviewed it.
Q. Okay.
MS. TOSTI: I don't know. Is it in the pile anywhere?
MS. CARULAS: I don't see it, but maybe you can find it.
BY MS. CARULAS:
Q. We don't see it. So your feeling would be you have not reviewed that deposition.
A. That's correct.
Q. Now, I notice on the front of the deposition of Dr. Kosmorsky you

wrote "45 minutes" there, which I assume would be the time you spent reviewing this for billing purposes?

A. It may not be all of it. It may be all of it, In other words, when I start, I may sort of only get through half of it and then I'll mark it and I'll put that and they I'll put -- it could have been all of it. I don't know.

Q. Now, the fact that --

A. But it is for billing purposes.

Q. The fact that Dr. Luciano's deposition doesn't have markings on it doesn't mean you didn't read it.

A. No. I just probably marked it someplace else.

Q. Okay. All right.

MS. TOSTI: Can I see this one for a second?

MS. CARULAS: Uh-huh.

BY MS. CARULAS:

Q. Now, we then have the report --

MS. TOSTI: These are the two family members.

MS. CARULAS: Okay.

BY MS. CARULAS:

Q. So we have in here the deposition of both Mr. and Mrs. Kiss, which you would have reviewed?

A. Yes.

Q. Then it looks as if subsequent to writing your report you would have reviewed the report of Dr. Boop, the report of Dr. Hedges. That seems to be it.

Have you ever seen the report of Dr. Neff?

A. No.

Q. Now, there was some mention to some personal notes that you have.

A. I just as I reviewed things last evening just sort of made notes to myself on the chronology.

Q. And that's something you have here with you today?

A. Yes. I have it in my pocket.

Q. Is that something I may see?

A. You could see if you like as long as you give it back to me.

Q. Okay. We can do one of two things. Either we can go afterwards and get a copy of this or maybe when your secretary comes with the CV for Jeanne or we can just attach this to the deposition and then you would get it back with your original.

MS. TOSTI: No. How about we leave him with his originals and -- or he can give them to me and then I'll make a copy and give them back to you. I'd like to leave him with his notes.

MS. CARULAS: That's fine. That's fine. I've done it either way and either is agreeable with me.

BY MS. CARULAS:

Q. What I would appreciate you doing, though, is a lot of this is cryptic, and I don't want to take too much time, but I'd like you, if you can, to go through and explain to me

what you mean by various notes here.

And before we do that, these were notes you wrote last night in preparation for the deposition?

A. Yes.

Q. Would there be notes at all that you've kept in reviewing this case initially prior to authoring your report in this case?

A. No.

MS. TOSTI: Doctor, is there any Xerox machine close by here that we can make a quickie copy of them?

THE WITNESS: Yes, I'm sure there is.

MS. TOSTI: Because that might be easier, and then you can have your original notes.

THE WITNESS: Do you want to stop and do that?

MS. CARULAS: That would be great. Thank you.

(Discussion off the record.)

MS. CARULAS: What we'll

do is we'll just mark this as Exhibit A, which is two pages, and starts at the very beginning at November of '97.

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(Thereupon, Exhibit-A was marked for purposes of identification.)

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BY MS. CARULAS:

Q. You say, "Bumped head. Went to Southwest General Health Center because of right lid swollen"; correct?

A. Yes.

Q. "Had CT," and you have the diagnosis there.

Then you have written down, "I do not have 11/21/97 note of Luciano"?

A. Yes.

Q. Is that what that is? But then you cross that off.

A. Because I found it.

Q. And then you put down, "11/21/97 note inadequate."

Okay. What do you

mean --

A. No. 11/21/97. Is that what you said? I'm sorry. Yes.

Q. Note inadequate, what do you mean by that?

A. Well, I mean, I've looked through all of this, if you want, and to pick out little bits and phrases we're going to -- if you want to go through the chronology later, we'll do it twice. I'll do it however you like.

The patient had some sort of an injury where he bumped his head and had a swollen lid and because of that went to this emergency room or to this clinic, whatever it was, and they did a CAT scan and they found that he had sinus disease, it was an air-fluid level and this mass, which they never made a diagnosis of. I mean, I've looked at the report and they've never said what it was.

I don't know how the patient was then referred to the Cleveland Clinic neurosurgery

department. And I was looking for an evaluation of patient sent to me with this finding and I examined the patient and they have this neurologic problem and this finding is causing this neurologic problem and the patient needs surgery for this, the standard thing that a surgeon does before taking a patient to surgery. I didn't see that note. The note I did see didn't have any of that, and that's why I wrote down that I thought it was inadequate, from a surgeon's standpoint.

And I'm a surgeon. I mean, I know what I'm supposed to go through before I consider surgery, do surgery, and inform the patients about surgery, and I didn't see any of that. So that's what I meant.

Q. Okay. All right. I can read the next, "Somehow," that portion there.

Then you have another section that you crossed out here. "Now" -- what's that say? No something?

A. Just what I just told you.

Q. Oh, "No good notes."

Why did you cross that off?

A. Because there -- I said there were no good notes about why the surgery was done on that, and that's true, but there was some documentation. All right? But the documentation was on the day of the surgery by the anesthesia people who cleared him for anesthesia and the pediatricians but there was no note that I found from the neurosurgeon, again, preoperatively. So that there were some notes but they weren't in the neurosurgical section, and I found them when I went back later and that's why I crossed it off.

Q. So you subsequently found Dr. Luciano's records?

A. No. What I'm telling you is that I found -- never found a preop evaluation from Dr. Luciano saying, I examined the child, this is what he has on clinical evaluation, this is what his

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CAT scan or MRI shows, the one is causing the other, by doing the surgery I will make it better, these are the risks and benefits of surgery. Never saw that. And that's what I was looking for.

Q. Then you go on to talk about a postop note. "Postop note says indication was third palsy but there was never a third palsy documented."

A. Right. I mean, there was a note by I guess the neurosurgeon that said, you know, we did this operation, the reason we did it was third nerve palsy. But this patient never had a third nerve palsy.

Q. And what is a third nerve palsy?

A. It's a very specific neurologic set of signs and symptoms that relates to the eye where it's a combination of lid abnormality and eye movement abnormality. And it's very specific.

Q. Then you go on, "1/16/98, S"

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above and then "telephone"? What does that say?

A. Right. Sa what happens is that the child has the surgery 12/1,7 and the next note that I came across in the neurosurgical notes, there were a series of images which I didn't include in here, but the next patient contact was 1/16/98, or at least that's the next one that's in the records, and it's a telephone contact.

Now, I was a bit confused by this note at the end. The note said the patient had severe neck pain, very irritable, appears -- and has been complaining of this headache and double vision for about two weeks, but then at the end of the note it says that it was getting -- it was, quote, slightly improved with some medication so I -- it looked like almost it was two notes combined into one under the same date. So it was very confusing to me. It was almost like they had called before, they said take this, and, well, did you take

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it? Yeah. Slightly improved, and that was in quotes so I guess it was the patient's words. But I don't understand that note. All right?

Q. I can't read this. "Appears to be" --

A. -- "two notes in one."

Q. All right.

A. And that was my confusion. If you'll read the note, you'll see what I'm talking about.

Q. And then why did you cross off the complaints of headache, diplopia times two weeks?

A. Because that was in the next note. All right?

The next note was the 22nd, in which it said the headache started two weeks ago. All right? And that the -- he closes his left eye because he's having double vision.

Q. And then down below, "2/9/98, ophthalmology diagnosis papilledema."

A. Right. So then nothing happens. The patient is complaining of

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double vision since the beginning, I mean, headache, irritability, stiff neck, double vision from the beginning of January. I couldn't find any note that anything was done or the patient was even seen until there's an ophthalmology note, a Community ophthalmology note, not a Cleveland Clinic note, of 2/9/98.

MS. TOSTI: Can I make one correction here?

The dates that the doctor has reported for that one telephone call, he's got the 16th down but I think that this may be the one that you're talking about, which I think is dated the 26th and I don't know if 1% maybe --

THE WITNESS: Yes. And I don't know why -- oh, I put --

MS. TOSTI: Yes. I think you have it on your notes as the 16th but it's actually dated on the 26th.

THE WITNESS: Okay. So

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that might -- so I don't -- I don't know why I put the wrong date. But anyway --

MS. CARULAS: That's okay.

THE WITNESS: All right.

BY MS. CARULAS:

Q. I want to get a feel for what these notes say.

A. Right.

Q. That's my purpose here.

A. So then he sees the ophthalmologist and the ophthalmologist says, oh, you've got papilledema.

Q. And what does this mean? "Nothing done except" -- what is that word?

A. Well, nothing was done from the beginning of January until he saw the ophthalmologist except re-imaging.

Q. "Nothing done except re-imaging" is what it says there. Okay.

And then "2/10/98, headache persists."

A. Right. So what happens, he

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sees the ophthalmologist 2/9, he says, "My God, you've got papilledema, you've got to go see the neurosurgeon," who sees him the next day.

The neurosurgical note, very scant, says, headaches persist, and, quote, rule out papilledema. Given Diamox. Follow up by phone. But it was a rule out. I mean, there was no documentation that the patient had or did not have papilledema and there was no treatment plan or follow-up plan for the papilledema.

I'm sorry. There was no follow-up plan. He was being treated for increased intracranial pressure by being given Diamox but there was no plan to look for the consequences of papilledema, of chronic papilledema, which happens when you get papilledema and increased intracranial pressure.

Q. Let's go to the next page here.

A. April 7th was the next note. And he -- now we're in April. It's a

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couple of months later. Continues to have headache, nothing is done in the interim, as far as I can tell, and mother in the note complained that his energy level was low, he doesn't want to get out of bed, et cetera, et cetera, frequent outbursts, to the point where he was even seeing a psychologist, I believe. And then there was this recommendation for more surgery but there wasn't an examination. I mean, there was no examination and it said, well, go to the pediatric neurologist for an examination before the surgery. Now, that doesn't happen for another week.

Q. So your next note is "4/14/98, also notes noise, right ears, starting two months ago. States if" --

A. States that the visual field was normal but there's no note that it was ever tested.

Q. Okay.

A. I mean, the note doesn't say we tested the visual, we did this.

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There's no -- it just says vision normal, vision field normal. Doesn't test it. But he -- whoever it was who examined the patient and it says 11 tested it, right, Roman numeral II, there's no indication they ever checked his vision.

Q. Okay. So --

A. And I would doubt a neurologist checked the patient's vision by having them reading an eye chart. So that can't be can't right. But he's admitted as an emergency the same day after four months, admitted as an emergency and has surgery the next day.

Q. And, again, I'm just trying to find out at this point --

A. I understand.

Q. So what you're saying here, Roman numeral "II intact but how was it tested?"

A. Right.

Q. "Noted papilledema."

A. Right.

Q. "Admitted emergently same day

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after three months and had surgery."
A. Next day.
Q. Is that what that little signal is, or what's that -- what's this?
A. Had surgery.
Q. What's that right there?
A. Oh, I don't know what that is.
Q. Okay. "Surgery next day," circled. And then you have "July 22nd," circled.
What does that refer to?
A. That's when they saw Kosmorsky.
Q. "Says in discharge note that Cohen recently noted papilledema but was noted by eye doctor in February." All right. Okay.
Now, was anything at all removed from this stack of the materials?
MS. TOSTI: I'll volunteer that I removed our correspondence as attorney work product.
MS. CARULAS: Okay.

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BY MS. CARULAS:
Q. Were you given in the correspondence that came from counsel's office, was there any type of a summary at all of facts that you read?
A. There may have been. They're usually included, but I never read them. I go through the records myself.
Q. So as far as the correspondence, if there was a summary, you wouldn't have read it. You would have simply --
A. I may have glanced at it, but I don't remember reading it.
Q. Besides the correspondence, was there any type of a chronology that was provided to you?
A. No. That's why I had to do this.
Q. Anything else that was removed from the file?
A. Not by me.
Q. Or by anyone else, that you know of.

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A. Just what she said.
Q. Now, besides speaking with Miss Tosti today and -- well, besides that, have you had contact with any other people that have to do with this lawsuit?
A. Just other people in your firm.
Q. Just from --
MS. TOSTI: Aside from counsel?
MS. CARULAS: Right.
BY MS. CARULAS:
Q. Well, you've had discussions with counsel from Miss Tosti's firm.
A. Yes.
Q. Mr. Becker, perhaps, others from that office.
A. Yes.
Q. Besides their office, have you had contact with any other individuals that have anything to do with this case?
A. No.
Q. Now, I take it you have not

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examined Kevin.
A. No.
Q. Do you have any plans to do that before your trial testimony?
A. No.
Q. Have you reviewed any literature specifically for this case, this medical-legal matter?
A. No.
Q. Now, as far as the players in this case, I know you mentioned that prior to this case you do not believe you had any dealings with this particular law firm that has retained you in this case.
A. That's correct.
Q. Do you know any of the other expert witnesses or doctors that provided care?
A. Yes.
Q. Who do you know?
A. I know Tommy Hedges.
Q. And how do you know him?
A. Well, he's a neuro-ophthalmologist, I'm a

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neuro-ophthalmologist, it's a small community.
Q. You would agree that he's a highly respected neuro-ophthalmologist?
A. He's a respected neuro-ophthalmologist.
Q. Anyone else besides Dr. Hedges?
A. Dr. Kosmorsky.
Q. And do you know him in the same circle, basically?
A. Well, he did some of his training with me and I do know him from -- have been invited to speak at the Cleveland Clinic by him, et cetera.
Q. You've not spoken with Dr. Kosmorsky at all about this lawsuit.
A. No.
Q. Or Dr. Hedges, for that matter.
A. No.
Q. Do you know Dr. Luciano or know of him?
A. No.
Q. So not ever heard of him by

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reputation at all.
A. No.
Q. Do you know Dr. Bruce Cohen?
A. No.
Q. Do you know Dr. Marcotty, who was involved in his care?
A. No.
Q. Do you know Dr. Neff?
A. Actually, Dr. Neff is on staff here but I do not know him, wouldn't know him if I bumped into him on the street,
Q. So you have not worked with Dr. Neff, do not have any mutual patients, anything of that --
A. No.
Q. Now, here at the -- and you know that Dr. Neff has privileges at or is associated with the university of Thomas Jefferson?
A. Yes.
Q. And maybe I'm not clear on this, but the Wills Eye center, are there neurosurgeons that see patients there or would the patients be referred

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to the neurosurgeons' office?
A. There are -- there is a neurosurgical inpatient floor in the Wills Eye Hospital, there are neurosurgical operating rooms in the Wills Eye Hospital building, and the offices for the neurosurgeons are, for example, in this building, which is right across the street from Wills, or the that building, which is right across the street. So that they don't have their offices there but they operate there.
Q. So does Dr. Neff also have privileges at the Wills Eye center?
A. I don't know if he has at this moment but he did have.
Q. Do you know who, if at all, he would refer patients to if he needed an ophthalmology consult?
A. I have no idea.
Q. But there's never been an occasion for the two of you to share a patient.
A. Not that I'm aware of.

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Q. And as far as the neuro-ophthalmology group here at Wills Eye Hospital, you're the director.
A. Yes.
Q. And I noticed on the -- on I think your report that there is a co-director?
A. Yes.
Q. Would that be like a vice-director, basically?
A. Yes.
Q. And that's Doctor?
A. Sergott.
Q. Sergott. Okay.
How many other neuro-ophthalmologists would be on staff?
A. There are two others, one who is inactive because he's out of the country.
Q. Who is the other?
A. Nancy Swartz.
Q. So as far as the decision in this case to actually involve Dr. Neff in this case, you did not have anything

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to do with that.
A. No, not a thing.
Q. Did not make any suggestion?
A. No, not a thing.
Q. Just coincidence that it happened to be.
A. Absolutely.
Q. Prior to testifying at the trial of this case, as you sit here today, is there any other information that you think you need in order to provide opinions to the jury, or do you feel that you have all the information?
A. Well, I mean, obviously, I don't know if I have all of the information. I went over with you the lack of a preoperative note. Obviously, if there is that bit of information and I don't have it, that's important information. So I don't really know how to answer that question.
Q. But -- so there's that particular instance. Is there anything else that strikes you that -- you know, for instance, an exam. You've told me

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you don't feel it's necessary for your opinions that you examine Kevin; correct?
A. Correct.
Q. Is there anything that as you reviewed these materials besides this preoperative evaluation that you said, wow, I really need that in order to complete my picture here?
A. Well, if he had other evaluations that are not in here; in other words, if he had certain tests done that I'm saying should have been done but weren't and they were done, then that would be important for me to know too.
Q. Anything else that strikes you that you --
A. I don't really know what you're asking me. I don't know how to answer it. I mean, if you want to be more specific, I'm happy to --
Q. No. I just need to know if there's anything that off the top of your head that as you sat here you

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thought, I need to go to this textbook and look this up or I need to review this or that beforehand.
A. No.
Q. Now, do you plan to testify as to the standard of care for a pediatric neurosurgeon?
A. No. I-- no.
Q. Your practice has always been exclusively in ophthalmology or neuro-ophthalmology,
A. That's correct.
Q. Now --
A. And, you know, the standard-of-care issue, I'm obviously not a neurosurgeon and not a pediatric neurosurgeon but because I'm a neuro-ophthalmologist, there are many diseases that I share with neurologists, neurosurgeons, pediatric neurologists, et cetera, and there are standard-of-care issues. So, I mean, I couldn't tell whether a neurosurgeon is technically up to the standard of care but there are certain disorders that I

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co-manage or see with neurosurgeons that there is a certain standard of care that I believe that I can testify to.
Q. Well, that's what I'm here to find out about.
You yourself have never practiced pediatric neurosurgery.
A. No.
Q. And let me -- to state the obvious, you're not Board-certified in neurosurgery.
A. No.
Q. And you wouldn't be eligible to take that test.
A. That's correct.
Q. And so if one were -- would say to you, Dr. Savino, do you feel comfortable stating what is the standard of care for a pediatric neurosurgeon, you would defer that to a pediatric neurosurgeon.
A. Not necessarily. For example, if I see a child who has a neurosurgical lesion and they have visual problem and the neurosurgeon

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says, we don't need to take care of this because and I know they're wrong, he's not -- he's -- that's a neuro -- he's a neurosurgeon, a pediatric neurosurgeon, but he's not up to the standard of care for that particular lesion.

Q. Okay.

A. See, that's the problem. That's where the crossover is.

Q. Well, I guess my question is, do you plan at the trial of this case to testify that Dr. Luciano deviated from acceptable standards of care for a pediatric neurosurgeon?

A. For a pediatric neurosurgeon with a child with papilledema, yes.

Q. Do you plan to testify at all that Dr. Marcotty, the pediatric ophthalmologist, deviated from acceptable standards of care?

A. No.

Q. You've reviewed his care.

A. Yes.

Q. And you believe that he

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appropriately evaluated Kevin.

A. Yes.

Q. And you believe that he made appropriate recommendations to Kevin.

A. Well, he -- he made -- he evaluated him once and had two choices that I think were equally valid. He didn't completely evaluate him for a kid who has papilledema but he sent him to on a neurosurgeon, which is the right thing to do, and to an institution where there are people like neuro-ophthalmologists that could evaluate him better than Dr. Marcotty could. So I think he did what he was supposed to do.

Q. But a pediatric ophthalmologist can evaluate a patient such as this as well.

A. That's correct.

Q. They're qualified to do it as well as a neuro-ophthalmologist would be.

A. Sometimes.

Q. And you saw that Dr.

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Marcotty did have a plan to see Kevin in follow-up.

A. Yes.

Q. And I mean, that would be a reasonable thing for him to do?

A. Yes.

Q. Okay.

A. Or send it to someone that is going to take care of it. Doesn't have to see the patient back. If he says, look, I don't want to do this, it's not what I do, I'm going to send him up to you, you take care of it.

Q. But if he chose to follow up and see the patient as well, that's certainly within his province as well.

A. Yes. If it's within his area of expertise and he's comfortable dealing with it, yes, that's right.

Q. Well, why don't you tell me and list for me so I know exactly what you -- your planned criticisms are what you plan to testify at the trial are your criticisms of Dr. Luciano.

A. Well, in a nutshell, we have

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a child who had papilledema, it became chronic and it was not evaluated or treated adequately and, as a result, he's permanently blind in one eye.

Q. When did the papilledema develop?

A. The papilledema probably, most likely, almost assuredly, developed at the beginning of January of 1998.

Q. And what is your basis for that?

A. Because he had the classic symptoms of increased intracranial pressure, and that's what causes papilledema, increased intracranial pressure.

Q. Okay.

A. Plus he had had a neurosurgical operation. And it's not unusual for people to have increased intracranial pressure after a neurosurgical operation. So if you combine that with the classic symptoms, it's, you know, a medical student diagnosis, essentially.

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Q. And what were the classic symptoms that he had?

A. Well, he has headaches, he has double vision, and after a neurosurgical operation, those are the warning signs of increased intracranial pressure, particularly to double vision. I mean, people who have neurosurgical can have headaches but usually the headaches tend to subside. But if you have increasing headaches and double vision, that's a warning sign that the pressure is high.

Q. So to recap, it would not be unusual for a patient such as this to have headaches for some time, actually, after this neurosurgical procedure.

A. I don't know exactly. Again, it's not my area of expertise. I would expect that you can have headaches after a neurosurgical operation. Some of my neurosurgical friends tell me, oh, no, that's just not the case; they sort of come out of it normally. But I would -- would not

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have that sort of a problem. But a patient who has double vision or has increasing severity of headache, that's not supposed to happen.

Q. As far as the length that one would have a headache following a neurosurgery procedure, that's something that you would defer to a pediatric neurosurgeon on that.

A. Yes. But here it's more or less of a moot point because on February 9th it was diagnosed -- I mean, an ophthalmologist saw him and they saw his optic nerves were swollen. He had -- you don't develop -- he didn't go to the ophthalmologist on February 9th and develop it that morning. You develop papilledema over days and weeks, And if a patient has the symptoms of increased intracranial pressure and then two weeks later -- and they're getting worse and two weeks later he goes to see an ophthalmologist who says, gee, you have papilledema, you have increased intracranial pressure, it is absolutely

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logical to assume that those symptoms were due to increased intracranial pressure. In fact, it's illogical to assume that they were not.

Q. I mean, did this patient have increased intracranial pressure back at the time of the neurosurgery procedure?

A. The first neurosurgical procedure? I don't know. No one looked at his optic nerves. So he could have had papilledema before the first surgery was even done. That's correct.

Q. So as far as when it developed, you are unable to say specifically when it developed other than it was present on February 9th.

A. No, that's not true. What I said was he had signs and symptoms that were unequivocally increased intracranial pressure from at least the beginning of January and had the papilledema documented on February 9th and the symptoms for the previous four

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weeks or six weeks are entirely consistent with what was found on February 9th. It would be illogical to think that they were due to anything else.

Q. Now, when you talk about papilledema in this setting, I've read about the condition called pseudotumor cerebri. Is that --

A. Yes.

Q. Is this a similar situation to that?

A. Pseudotumor cerebri is a disorder that has very strict definitions. It is increased intracranial pressure with no mass lesions in the brain, in the skull, normal-size ventricles and a normal cerebrospinal fluid except for increased pressure. That's the definition.

Q. Would what Kevin had be a similar situation to that?

A. No. I mean, he had -- he had an arachnoid cyst, he had had neurosurgery, so no he doesn't have --

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one of the MR reports made a comment about his ventricles, so no, he didn't have pseudotumor cerebri.

Q. So you've given me the general flavor of the case. I need to know specifics.

What is the first thing that you think Dr. Luciano did that deviated from acceptable standards of care?

A. From my standpoint as a neuro-ophthalmologist, he didn't pay attention to the papilledema and evaluate it or make sure that someone was evaluating it to prevent the only real consequence of chronic papilledema, which is blindness. That's the only thing that you have to watch out for. And you -- it's easy to do. You just do a visual field on a patient, you check their vision every once in a while, you look in the back of their eyes. That's what you need to do in every patient who's got papilledema.

Q. And when do you believe he

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first should have done that?

A. When the patient after the surgery started complaining of increasing headaches and double vision.

Q. And when do you believe that was?

A. January of '98.

Q. And do you have a specific date or not at this time?

A. Well, according to the records, in the -- at the end of January the record indicates that the headache started two weeks before. That's as specific as I can get.

Q. And we know that when Dr. Luciano saw the patient on February 10th, okay, after the referral from Dr. Marcotty --

A. Yes.

Q. Are you with me? -- he started the patient on a trial of Diamox. Is that a reasonable approach for the treatment of papilledema from increased intracranial pressure?

A. No, not -- no, not just like

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that. In other words, if someone has papilledema, you really need to find out why they have increased pressure. And if this was truly a trial of Diamox, you have to evaluate something before the medicine starts and after it's given to determine whether your trial is working or not. And the thing that had to be done was he just had to be sent down the hall to Dr. Kosmorsky for a vision, for a neuro-ophthalmologic examination. What happened essentially was either the importance or the consequences of papilledema were not recognized or were ignored.

Q. So what should he have done at that point?

A. He should have either taken care of it himself or referred it to someone who could have monitored this child who had papilledema for visual loss, which is the only, only consequence, permanent consequence, of papilledema, particularly since he was treating him for it.

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Q. And what is involved in the monitoring?

A. You check visual acuity by having him read the eye chart. But, most importantly, you have to check visual field.

Q. Okay.

A. And you have to look at the optic nerves to see how they're doing.

Q. So the -- what you're telling me should have been done that wasn't done is, number one, checking the vision with an eye chart. Correct? Number two, visual field. And, number three, checking the optic nerve.

A. But not in that order. In order of importance, the most important test in anyone who has papilledema and you're following is a formal perimetry, formal visual fields. That is the single most important test because what happens, the way you lose vision in papilledema, chronic papilledema, is the vision comes in from the side. By the time you can't read the eye chart,

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you've lost the game, it's over.
The time you want to make the diagnosis -- and that's why you need a formal perimetry. It's why you can't sort of wave your fingers out here and say do you see them? That's Just not good enough. You need to do the test that was eventually done, and there were a variety of them that were eventually done on this child, that show what the visual field is doing from exam to exam to know, is it getting worse or is it getting better? Is my therapy working and I can continue with it, or is it not working and should I do something else before this child loses vision?
Q. So number one, formal visual field.
A. Correct.
Q. Anything else?
A. lust the vision and the -- and looking at the optic nerves, You have to make sure that the patient still has papilledema. I mean, a patient who has a mass in the brain could be losing

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vision from something other than papilledema.
Q. Okay.
A. So the patient could be having double vision from something other than papilledema, so you have to -- other than increased intracranial pressure. So you have to either evaluate it yourself or send it to someone who has the willingness and the ability to do it.
Q. And so I understand it, checking the optic nerve is simply checking for the presence or absence of the papilledema.
A. No. It's more than that.
Q. Okay.
A. It's -- that's the first step. And then if it's present, you then have to look at the optic nerve and you have to grade it and you have to -- because -- you have to know how long it's been there and is the optic nerve in danger.
For example, if someone

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has increased intracranial pressure, if you looked at this child when he first developed increased intracranial pressure, his optic nerves would have been nice and pink, he may have had some hemorrhages, and you'd look at that and you say, he's not going to lose vision from chronic papilledema because this isn't chronic.
As it becomes more chronic, the disk takes on a whole variety of characteristics that are more ominous signs that the patient is going to lose vision even if you correct the situation at that point, so that if you see a patient with papilledema and you see these signs developing, it is another one of the bits *of* clinical information you have to say, we need to change our treatment now because it's not working; we're losing the battle against blindness in this patient.
Q. And at what point -- what is the appearance of an optic nerve where you know it's too late?

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A. Well, no. What I said is when you know it's getting to be too late is that the optic nerve instead of having that nice pink color I talked about becomes grayish or yellow. It's still elevated and it has these crystals that are in there that look -- that are called pseudodrusen, we call them. And they're just signs of chronicity. And what you see actually is you see the nerve fibers are actually disappearing. You can look at the retina, which has a certain thickness, particularly in kids, and you can see that it's thinning out. So those are all the things that you want to look for because even -- you can imagine if you've lost the nerve fibers, even if you then correct the situation, those nerve fibers don't grow back, they're gone. So you want to institute the therapy before that loss happens.
Q. And so just so I understand, what would be the picture of the optic nerve where it's too late?

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A. Well, when it's too late, it's when it's flat and pale. Before that, you never know if it's too late until you treat it.
Q. What is the point in time where papilledema exists -- and let me start over.
Papilledema is just a sign; correct? I mean, papilledema is not a condition itself.
A. That's correct. It's a sign of a variety of conditions but it -- it -- it means -- when we as neuro-ophthalmologists talk about papilledema, there's only one cause, and that's increased intracranial pressure. So it is a sign of increased intracranial pressure.
Q. Nothing else could cause papilledema.
A. Not the way neuro-ophthalmologists use the term.
Q. Others may use it differently?
A. Incorrectly. They may use

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it incorrectly.
Q. You would agree that generally out in the community others -- there's some disagreement or variance in the use of the word "papilledema."
A. That's why I made the statement that when I say papilledema and when Dr. Kosmorsky says papilledema and when Dr. Hedges says papilledema, it's -- it means a specific condition that's due to increased intracranial pressure.
Q. Now, as far as visual fields are concerned, is there ever difficulty in obtaining a formal visual field on a child?
A. Depends on how young the child is, how bright the child is, how cooperative the child is. It used to be a lot more difficult before computer games. Now it's a whole lot easier. We do visual fields on five year olds all the time because it's like a computer. They're used to doing it.
Q. I mean, I guess my question

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is -- and we're talking back in '97 -- is it well documented and well known that formal visual fields can be difficult in a child?
A. It -- I don't know what difficult means. Are there some children you can't do visual fields on? Yes. But the only time you know is after you try, and if you can't do it, you can't do it.
Q. Are there some pediatric ophthalmologists or neuro-ophthalmologists that prefer confrontational visual fields to check a child's vision?
A. Instead *of* formal perimetry? I certainly hope not.
Q. So you would advocate in all children at all times a formal visual field is always better than a confrontational visual field.
A. Absolutely.
Q. And there are no circumstances where you as a neuro-ophthalmologist are unable to get

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a good visual field, formal visual field, on an eight-year-old child.
A. That's not what I said. What I said was you try it on every child, and if you can do it, that's better, much better, than confrontational fields. If you can't get it, then you have to do some other way to test the visual fields, if you have to. And that's when confrontational fields come in, only after you've had the kid prove to you that they can't do the formal perimetry.
Q. And you would go on to the next step of a confrontational visual field?
A. You do the -- you do the next best thing. It's not anywhere near as good and doesn't give you anywhere near as good information but it's better than no information at all.
Q. So there's value to it.
A. If done correctly, yes.
Q. Now, as you look back and attempt to reconstruct what took place

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here, are you able to say to a reasonable degree of medical probability what a visual field, a formal visual field or a confrontational visual field, would have shown in early February of 1998?

A. Given what his visual field turned out to be, you can very easily go back and reconstruct what the pattern of his visual field loss would be because it's very well known what the pattern of visual loss is in chronic papilledema. He would have started to have a bit of peripheral loss, He may have even started to have that in February, because you can get that a month or two out, but certainly by March or April he probably would have had marked constriction of the visual field, and by the time the vision goes down to below 20/30 or 20/40 the visual field is severely compromised.

Q. You said that in February of '98it's possible that there would have been some evidence on a visual field.

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And I guess my question is, are you able to state to a reasonable degree of medical probability more likely than not that a visual field in February of 1998 would have shown something?

A. I think that the answer to that is yes because, you know, part of my limitation is the tests weren't done. You know, the tests that needed to be done weren't done. However, when he did see the ophthalmologist in February, he did not have normal vision even at that time. His vision in his left eye was down to 20/30, I believe, whereas vision, it's 20/20, so that my suspicion is he was beginning to get some visual difficulty even at that time.

Q. Okay.

A. So there is a good degree of medical probability that he could have had a visual field deficit even at that time.

Q. And that's where we're getting caught up into the could have and would have. Okay? And that's my

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question for you. And if you have the opinion, fine; if you don't, that's fine too. I just need to know for my purposes later what your testimony will be.

As you sit here today, are you able to say that in February of 1998, had a visual field been performed, that he would have more likely than not, as opposed to he possibly, could have had a visual field?

A. Given the information that's there, yes, he probably -- he would have, within a reasonable degree of medical certainty, had some sort of visual field deficit.

Q. And the basis for that is the fact that he was 20/30 in the one eye?

A. Is that he had papilledema and his visual function was not normal.

Q. Anything else that leads you to that conclusion?

A. No.

Q. Now, if you -- I may have

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asked you this already and if I did, I apologize.

Is there any role for Diamox in this setting, in your opinion?

A. Diamox is used to treat pseudotumor cerebri. This child did not have pseudotumor cerebri. Whether neurosurgeons use Diamox to treat increased intracranial pressure postoperatively routinely or after fenestration of subarachnoid cysts I don't really know, but there was no role to treat this child as if he had pseudotumor because he didn't.

Q. You confused me with this,

If it turns out that in this setting following a cyst such that Kevin had that the pediatric neurosurgery community does use Diamox in this setting, you would defer to them on that.

A. Sure. However, the -- where it was lacking is that if they were treating him, if you treat somebody for anything, you have to monitor them to

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see if your treatment is working. So if they were treating him for his headache and his headache went away, that's fine. So either they were not treating him for his papilledema because they weren't monitoring it or they were treating him for his papilledema and they weren't monitoring him. So either way, it's a problem.

Q. So what is the frequency of monitoring in a setting such as this? So, you know, we know that Dr. Marcotty obtained a -- he checked the vision; right? 20/20 in one eye, 20/30 in the other.

A. 20/25 in one eye, 20/30 in the other.

Q. Assuming for the sake of argument that a visual field was done at that point in time, okay, what would be the next step as far as monitoring of the patient?

A. It depends on a couple of factors. It depends on what the visual field shows at the first test and what

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the optic nerves look like.

If at the first test in any patient that you're looking at with papilledema the optic nerves look like it's acute papilledema and they have no visual field defect, you may see them back in two, three months. If the patient has a visual field defect and the appearance of the optic nerve is tending towards this chronicity that we talked about before, it's just sort of grayish, it's got these things there, it's elevated, et cetera, et cetera, you may want to do it a little bit more frequently, four weeks, something like that.

Q. Now, does the imaging in this case, did that play any role?

A. No.

Q. So CT scans were of no benefit in evaluating the amount of fluid and increased intracranial pressure.

A. No.

Q. And why is that?

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A. It has no role in evaluation of papilledema unless you're looking for the cause of the increased intracranial pressure.

What I'm talking about is increased intracranial pressure is causing a problem. That problem is going to cause the other problem. So you'd have to monitor the effect of the increased intracranial pressure, which is the papilledema, which is going to cause the blindness. And that's not --

Q. So the amount of fluid on the scan has no --

A. Nothing. It has nothing to do with this.

Q. And why is that?

A. Because we know, for example, in the pseudotumor patients that their scans look normal yet their pressure is still high.

Q. Now, I know you've not had the benefit of reading Dr. Cohen's testimony in this case, who's a pediatric neurologist, but he testified

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that in April he performed both a vision check as well as a confrontational visual field and that they were both intact, normal.

A. Well, I mean, I haven't read his deposition but I read his note and I understand he said that.

Q. Uh-huh.

A. There's -- I don't know how he checked his vision. He didn't -- I mean, a pediatric neurologist checking a patient's visual acuity? I don't think so. I mean, I deal with pediatric neurologists all the time, and I can tell you there's nothing with regard to confrontational visual fields. Neurologists just don't know how to check confrontational visual fields. It is the single most difficult thing that I have to teach neurology residents. It is -- it's something that is just not reliable enough. You do it, I encourage them to do it, but it's not reliable enough in their hands.

Q. Why would you encourage them

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to do it?
A. Because if you pick up something, you want to investigate it. You know, again, it's some information is better than no information. But the fact that it's -- well, it's normal, I can't tell you how many times I've seen patients from neurologists who say that the confrontational visual fields are normal and I've done them the next day and they're absolutely not normal.
Q. plow, what about checking vision; to your knowledge, pediatric neurologists don't ever check vision?
A. Pediatric neurologists don't usually check visual acuity.
Q. Okay.
A. If Dr. Cohen has a thing in his office where he has them read the eye chart with his glasses on, that's different. But he didn't write it. You know, and it was the note is in here someplace that said Roman numeral something through Something intact. It's a standard sort of resident way of

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notating a very cursory examination of things.
Q. If for the sake of argument that this confrontational visual field was done by you, okay, In April and was the same finding that Dr. Cohen has testified he found, what would that tell you?
A. It would just tell me that the confrontational fields were normal but it wouldn't mean that the visual fields were normal.
Q. So if you had a setting where formal visual fields were done and they weren't reliable because of cooperation issues, then you went on and you did a confrontational visual field and you found it to be intact, what would that lead you to do?
A. Well, if it was a patient like this or any patient who I thought had chronic papilledema, I would look at the optic nerve and I would say, you know, that optic nerve is either consistent or inconsistent with normal

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visual fields. If I thought that the field -- that it was inconsistent with normal visual fields, I would probably do some other tests.
Q. And what would be inconsistent with normal visual fields?
A. If it -- if it looked like it was dying, if it looked like all of the other disks I've seen that have had visual field defects, that would be inconsistent.
Q. If it had that gray, flat look that we talked about?
A. Among other things. Right. Not flat. Not flat.
Q. But gray and progressing. Are pediatric neurologists trained to be able to check the optic nerve?
A. I would hope so.
Q. As you look back on this, what do you think should have been done and at what point?
A. I think that from the time that the first signs of increased

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intracranial pressure were conveyed to the neurosurgeon's office, increasing headache, double vision, that should have been the diagnosis that was taken into account. From the time that the ophthalmologist noted that there was papilledema and the neurosurgeon assumed that there was increased intracranial pressure, because he treated the patient with Diamox, the optic nerve function had to be monitored.
Q. And we've talked about that.
A. Yes.
Q. We know that this patient underwent a shunt in April. Shunt was placed; correct?
A. Yes.
Q. You would agree that the placement of a shunt itself can cause -- it has a complication rate; correct?
A. I suspect.
Q. Do you know what the complications are from shunt placement, or is that within the realm of a neurosurgeon?

A. I don't know what the neurosurgical complications are.
Q. Do you know what the complications are from a cyst fenestration itself?
A. No.
Q. Is there a risk of losing vision from a fenestration itself?
A. Not that I'm aware of.
Q. Is there the risk at all of losing vision from a shunt placement?
A. You know, I don't think so in and of itself. There is this whole concept that is sort of quite old that is not really just shunt, it is a rapid decrease in intracranial pressure when a patient has chronic papilledema that you can because of some hemodynamic something or other -- and it was never really well defined in the literature -- the optic nerve can infarct, the nerve that's chronically swollen can infarct and the patient who has been slowly, slowly losing vision will go on and lose vision at a much more quicker tempo, to

the point where when we had patients with chronic papilledema and hydrocephalus or brain tumors, we would, our neurosurgeons and we would put a drain in first and slowly lower the pressure or we would treat the patient aggressively medically first to get the pressure down to try to avoid this sudden change in hemodynamics. We haven't done that for years and we've -- I've noted no change in the incidence of this papilledema, loss of vision. So I know it's written about, I know it's talked about. I'm not sure it's a real phenomenon.
Q. How do you define chronic papilledema? How long does papilledema need to go on for you to consider it to be, quote, unquote, chronic?
A. Months.
Q. Months meaning?
A. Months.
Q. Meaning one month? Two months?
A. Yeah, one month, two months.

Q. So one month would be considered chronic papilledema?
A. After one month, sure.
(Discussion off the record.)
BY MS. CARULAS:
Q. And I'm sure you have seen patients that have chronic papilledema for months, even up to many years, who have not suffered any visual problems.
A. I have?
Q. Have you not?
A. No.
Q. Have you ever -- you're not aware of patients at all that would have long-standing papilledema?
A. No. Patients who have chronic -- who have chronic papilledema have visual field loss.
Q. Okay.
A. At a minimum.
Q. So have you ever had patients that you monitor papilledema for long periods of time?
A. I have hundreds of patients that I've monitored with chronic

papilledema.
Q. And do they all suffer visual field loss?
A. If I don't treat them, they do.
Q. And what do you treat them with?
A. Depends on what the cause is.
Q. Give me an overview.
A. If they have a brain tumor, we have the brain tumor addressed; if they have hydrocephalus, we have them shunted; if they have pseudotumor, I have a regimen that I treat them with.
Q. And what do you treat them with?
A. I usually start off with weight loss, depending. It depends. If I see a patient who has acute papilledema and the signs, they come to me because they have the signs of increased intracranial pressure, headache, double vision, et cetera, but their papilledema is acute and they have

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just a little bit of -- no visual field deficit, and they're overweight, I treat them with weight loss and I follow them with sequential visual fields and disk photographs. I photograph their discs so I can compare it from time to time.

If they come in to me and they're already, like a woman did today, already have chronic papilledema and they have visual field loss and their vision is down, I'm going to get a lot more aggressive, and I may take that woman to surgery or have someone take her to surgery as the first option.

The in between is the patient who I think is at risk to develop visual loss or is developing a little visual loss, the disk looks a little chronic, I may start them on Diamox if they're not allergic to sulfa.

Q. Do you ever have patients that you watch over months to years where all you do is have the weight loss and not treat them with anything else?

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A. Well, you have to understand, the answer to that is yes, but you have to understand in pseudotumor cerebri I believe weight loss is the best, the most effective treatment. So it'S not like just weight loss; it's like the ultra treatment. It is the best in patients with pseudotumor cerebri.

Q. Can patients have chronic papilledema for years and not suffer a visual field loss?

A. No, I don't believe that.

Q. Now, what intervention do you believe should have taken place?

A. I think that what should have happened is the patient should have been monitored and depending on what was going on with the optic nerves, the neuro-ophthalmologist and the neurosurgeon would have gotten together and the neuro-ophthalmologist would have said, you know, we're getting these visual field defects, this is becoming chronic, we need to lower the pressure. Then it's really up to the neurosurgeon

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to say, well, okay, there's something in his head that I can do to lower the pressure. That's acceptable. He would have said, well, you know, there's really nothing I'm going to do to lower his pressure in his head, that I want to do, that's necessary to do, and then the ophthalmologist would have done another operation, like an optic nerve sheath fenestration or something. So at that point there would have been several options.

Q. And as you look back at it, what point in time do you think that would have been?

A. Oh, I think that from at least February, when the papilledema was there, there should have been this dialogue going on.

Q. Obviously, there was a time frame when monitoring could have taken place; correct?

A. Yes.

Q. And so as you're looking at this and reconstructing this, at what

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point in time do you believe either an optic nerve sheath fenestration or a shunt or some neurosurgery procedure should have been done?

A. At the time that the visual fields showed that the patient was losing vision.

Q. And when was that?

A. He didn't do the test. I can't tell. And that's the problem. So that by not doing the test, you place everybody at a disadvantage.

It's entirely possible that this kid could have had papilledema that preceded the first operation and by the time he was seen it was already chronic.

Q. So that what you're saying is that by February even had a shunt been placed or an optic nerve sheath fenestration been done at that point in time, the results would have been irreversible?

A. Whatever visual field defect was there would have been -- would have

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been irreversible, but at that juncture it's much more likely that whatever visual field deficit was there and was irreversible would not have been visually significant.

Q. Explain to me as far as this optic nerve sheath fenestration. I mean, do you believe that the standard of care required that at some point?

A. No. That's just a mechanism to -- to reduce the swelling, to prevent the patient from -- from losing further vision. It is just one of a whole variety of treatment regimens that you could use to treat this.

Q. When did you start doing the optic nerve sheath fenestrations?

A. Oh, I don't remember when I did my first one.

Q. Has it been -- I mean, were you --

A. 15 years.

Q. And in this setting where -- would you do them both at the same time, both eyes at the same time?

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A. There are some people who do both at the same time. We here do not because there's a small percentage of patients where, for some reason, and we don't know why, you do one eye and the swelling goes down in both eyes.

Q. So what is your plan? You do --

A. The worst eye first.

Q. Based on what?

A. Visual fields, how the optic nerve looks, all the visual function testing.

Q. And then what's the time frame before you go on with the next study?

A. Depends what the status of the next eye is. They're not necessarily the same. They can be very asymmetric, and it may be you only need to do one side, and then if you have to do the second side, you do it when all of those same indicators indicate you have to.

Q. So as you look back at this,

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since you're trying to reconstruct all of this based on, on the data you have, I mean, are you able to say at what point in time one of those interventions should have taken place, or can you not say that?

A. I can say it at the -- that it should have taken place when the visual fields were getting worse. You want to ask me what day of what calendar year it should have taken place, I can't answer that because the tests were never done.

Q. And assuming for sake of argument that the visual fields were done say in March and in April and they did not show an abnormality, you would agree in that setting there would not be the indication to go in with either an optic nerve sheath fenestration or a shunt placement.

A. If the visual fields were not showing an abnormality and the optic nerves, as we monitor them, were not becoming progressively more chronic

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looking, where we knew we were not moving in the right direction, independent of what the visual fields showed, then I would say, sure, then, of course, you observe the patient. You don't do surgery for no reason.

MS. TOSTI: Can we clarify we're talking about formal visual fields here?

THE WITNESS: That's correct.

MS. CARULAS: All right.

BY MS. CARULAS:

Q. And say you have a setting where you attempt formal visual fields and, as we've discussed, for whatever reason, the child is not cooperative and you can't get a good one and you do a confrontational visual field that you feel comfortable with and it does not show an abnormality and your optic nerve examination does not show the look of the disk that you've said that shows it's progressing. Would you feel comfortable monitoring the patient then?

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A. If I did that or someone showed me a photograph that that -- what you stated was true, yes, you're not going to do an operation because someone -- just because someone has increased intracranial pressure to protect their optic nerves but I -- you can't give me that information because no one collected it here. And that's the problem.

Q. Now, you've read the report of Dr. Hedges.

A. Yes.

Q. And we've discussed already this phenomenon of the post-shunt events that can occur.

While you've said you yourself have not -- you've never observed that in a patient yourself?

A. Well, what I said is I've seen patients who have lost vision after a neurosurgical procedure that lowered intracranial pressure when that patient ha5 had chronic papilledema,

Q. Okay.

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A. The shifting stuff, I don't know what that is. And even if you believe that a rapid lowering of intracranial pressure causes some sort of problem, there are essentially two provisos. One is, as Dr. Hedges says, a it's extraordinarily rare. I mean, he uses the word "rare." And, secondly "- and this is really very important -- it doesn't happen with normal optic nerves. It only happens on the background of chronic papilledema. So that the optic nerves have to be neglected all of that time and become chronically swollen and be teetering for this to tip them over the edge. This is not someone who has absolutely healthy optic nerve, goes in there, has something done, something shifts and they lose vision. That's just not the way it works, even in the rare instances where Dr. Hedges says it happens.

Q. Now, I understand your opinion as to the cause of this and we've been through that.

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You would not disagree, would you, that Dr. Hedges's opinion as to what took place here would be a possibility?

A. Oh, I think it's so extraordinarily unlikely, I was surprised to see it.

Q. You don't see any way that that could ever have played a role here.

A. Given -- given the entire bits of information that we had, if -- if I presented this patient to Tom Hedges, his first diagnosis would have been chronic papilledema with visual loss, as was Dr. Kosmorsky's, the neuro-ophthalmologist, as was Dr. Jeffery's, Amy Jeffery's, the neuro-ophthalmologist. I was surprised to see it.

Q. Tell me, what is your understanding as to how the visual loss was detected in this case?

A. Again, because Dr. Kosmorsky didn't see the patient until July, there was some -- something in something I

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read about the child was having some difficulty in sports or something after the second operation. He had been complaining of double vision all the time but no -- no one ever sort of talked about decreased acuity until I think he Rad some problem with sports and then -- and then he finally got to see Kosmorsky, who found out his vision was quite poor in that eye.

Q. Had there been anything prior to that, to your knowledge?

A. Not that I remember.

Q. Did you see any reference in there that when they discovered the visual field loss, the child was unaware of it?

A. Doesn't surprise me. In fact, that -- that is another bit that we teach neuro-ophthalmology, ophthalmology, neurology residents. There's a difference between the sudden onset of visual loss and the sudden discovery of visual loss. It's just typical, I mean classic

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neuro-ophthalmology teaching. Slowly progressive visual loss in one eye is hardly ever noticed. Sudden loss is always noted, almost always noted. So that if -- unless it's both eyes, if you came to me and said that this patient has count -- fingers vision and didn't know it, I would say, well, we better make sure. This probably was a slowly progressive loss of vision.

Q. And why it they don't notice that they have --

A. It's a combination.

Q. Just so the record is clear, why is it that a child such as that doesn't notice that they have a vision loss?

A. It's not just a child. It's adults as well. And it's a combination of things.

First of all, it's one eye. And most of the time we go through life with both eyes open. And that's why I talk about the sudden discovery. I have patients all the time

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who come in and they have something blow in their eye, they go like this, cover it and rub it and all of a sudden discover they can't see out of their other eye. So with both our eyes open we see as well as we see out of our a better-seeing eye. So you wouldn't necessarily notice it.

Decreasing vision in one eye doesn't usually bother your peripheral vision enough that you would notice it. All right? That's the other reason you need to do formal fields. You just don't notice it. And so it's the slowly progressive nature of it and the fact that the other eye is normal.

Q. What is the vision loss he has?

A. I don't remember offhand. It's in Dr. Kosmorsky's note. I think his vision was hand movements or count fingers in one eye.

Q. And was there a difference between the extent of his peripheral

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versus his central vision loss?

A. He had quite extensive visual loss in both, as I remember, from the visual fields that Dr. Kosmorsky did.

Q. In your experience, do children who lose vision in one eye adapt better than adults do?

A. In what respect?

Q. In functioning.

A. There are certain things that -- I don't think it's age dependent, to tell you the truth, because there are certain things that you -- if you've had vision in both eyes that you lose that means something. For example, depth perception. You can't see in three dimensions unless you have two eyes that are seeing well and are lined up together. And you -- and you miss that. All right?

I worry more about children with one eye. Can you function? Sure, you can function. You know, in some states you can drive a car, with certain regulations and stuff.

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I worry about kids because it does alter how I treat them. We give them polycarbonate lenses, protective lenses, we warn them to not do certain activities, not do certain sports, and I worry that a 10-year-old, a 12-year-old kid who's got a 60-, 70-year life-span, if something happens to his other eye, his good eye, which can happen to any of us, he doesn't have that other one as a spare.

So can he function? Sure. Are there things he can't do? Absolutely. Do I worry? Yeah, I worry more than someone who's 80 and lost one eye because they only have a lot less time frame for them to be carried with their remaining good eye.

Q. What are the things when you say he can't do, what are the things he can't do?

A. Well, I would not, for example, recommend -- you can do anything you want to do if you want to disregard the consequences, first of

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all.

Because he doesn't have depth perception, I would riot want him to be employed around any machine with sharp cutting edges that he has his hands near. All right? I wouldn't want him employed in a -- an occupation where he's sort of off the ground and has to have good depth perception. He couldn't be an ophthalmologist, for example, because we in order to -- before we interview people we have them do a stereopsis test. So those are the things he can't do.

Recreationally, there would be certain sports.

Q. Let me just back up, before we go to that.

Any other occupation that you can think of that he would not be able to do?

A. I'm sure there are but -- I mean, he couldn't drive a truck. Me couldn't -- couldn't get a license to drive a truck across state lines. So

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there are a whole bunch of things.

From a recreational standpoint, if I was the father of a child like this, it's tough not to be overprotective. You know, you've got to walk away from fistfights, you've got to not throw stones. You can't play baseball. I wouldn't have you play hockey. Anything with short, hard, fast-moving objects the kid should avoid.

Q. Any child who has a shunt probably cannot -- shouldn't play football or hockey or that sort of thing.

A. I don't know that.

Q. You're not familiar with that. Okay.

Are there a number of professional athletes that have done very well with one eye?

A. I don't know.

Q. Can you be a pilot? Have there been pilots with one eye?

A. I'm not aware that you can

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fly a plane with one eye. I don't know.

Q. Never heard of any pilots that have --

A. No.

Q. -- have one eye. Okay.

Would it surprise you if there have been?

A. Yes.

Q. It would?

A. Very much so.

Q. Are you aware of -- have there been a number of successful people with one eye?

A. No question. Been a number of successful people with no vision.

Q. Sure. Absolutely.

A. But no pilots.

Q. What's that?

A. But no pilots.

Q. No. Well, who wants to be a pilot now anyway?

Do you believe we have covered all of the areas that you plan to express criticisms of Dr. Luciano?

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A. I don't know how to answer that because there are certain things that I hadn't thought of until you asked me the question, so if that comes up again, I mean, obviously, I don't plan to express any other criticisms about anything that we've talked about as we've talked about them, but if there's a new wrinkle or new information or a new question, then I might have something different to say.

Q. Okay.

A. Or new to say.

Q. We know you wrote a report dated March 27th of 2001. Did you write any other reports other than this?

A. No.

Q. Would you just take a quick look at that for me, please.

A. Okay.

Q. And you have your conclusions on the next page, I think.

A. Okay.

Q. Does that basically encapsulate your opinions in this case?

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A. Yes.
Q. Based on all your review of these materials, is there any other criticism that you have of Dr. Luciano that's not in the report you haven't expressed to me today?
A. Again, I don't know how to answer that question. All I can say is, in general, my criticism is not monitoring, not paying attention to the papilledema and not either recognizing or paying attention to the problems that could have occurred with chronic papilledema and not having it monitored either by himself or by somebody else. In that global statement I think is more or less my...
Q. If you decide to review something else between now and February and something new comes to mind that's something we haven't discussed or something that's not set forth in your report, will you be kind enough to advise counsel for the Kiss family so they can advise me of the same?

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A. Absolutely.
Q. Hypothetically, had a shunt been placed in March of 1998, can you say what Kevin Kiss's vision would be now?
A. It would be closer to what Dr. Marcotty found in February than it was in July, when Dr. Kosmorsky saw him.
Q. Are you able to say that had a shunt been placed or an optic nerve procedure been performed during March of 1998, that he would not have visual loss?
A. Without -- as I said before, without the appropriate evaluations having been done, I have two points, one in February and one in July, and I can't pick out a specific day and say his vision would have been this, his visual field would have been that.
Q. Or what his visual outcome would have been had a procedure been performed in March; is that correct?
A. That's probably true. Because it would have depended on what

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his visual function was at the time that it was done.
Q. So as you sit here today, and for purposes of what you will say in February, which is my whole point for being here today, you are unable to give an opinion to a reasonable degree of medical probability as to what Kevin Kiss's vision would be now had he had a procedure in March of --
A. No, that's not true.
Q. Okay.
A. Had he had a procedure in March, I said, his vision would have been closer to what it was in Dr. Marcotty's office in February than what it was in Dr. Kosmorsky's office in July.
Q. But you're unable to say that he would not have visual loss of some extent.
A. He might have had visual loss when he saw Marcotty in February but because the appropriate tests were not done, I can't answer the question by

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showing you a test. All I can tell you is within a reasonable degree of medical certainty, because of his outcome, because of what I've seen in the records with the scant information that I have about the visual information, and knowing about the chronic papilledema, the sooner you intervene the better the visual function.
Q. And being able to quantify along the continuum of time line, you're unable to do that.
A, Because there are no data.
Q. And as a result, you're unable to quantify, give an opinion and quantify specifically what would be what at a given point in time.
A. No. I -- I gave you my opinion. My opinion is within a reasonable degree of medical certainty that if the shunt or some procedure had been done earlier, his vision would be better.
Q. But as far as being able to quantify that, you cannot do that.

A. I have two examinations, one in February, one in July. No one checked it, so I can't quantify it in retrospect.

Q. That's all I want. You gave an opinion earlier that you could a hypothesize looking backward of what a visual field would have shown.

A. In generalities, certainly.

Q. And so I simply was asking the same question regarding visual loss.

MS. CARULAS: Okay. That's all I have.

Thank you very much.

THE WITNESS: You're welcome.

(Whereupon the deposition concluded at 4:58 p.m.)

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CEFARATTI GROUP FILE NO. 6035
CASE CAPTION: KEVIN KISS, ET AL. VS. THE CLEVELAND CLINIC FOUNDATION
DEPONENT: PETER J. SAVINO, M.D.
DEPOSITION DATE: OCTOBER 30, 2001

(SIGN HERE)

The State of Ohio,)
County of Cuyahoga) SS:

Before me, a Notary Public in and for said County and State, personally appeared PETER J. SAVINO, M.D., who acknowledged that he/she did read his/her transcript in the above-captioned matter, listed any necessary corrections on the accompanying errata sheet, and did sign the foregoing sworn statement and that the same is his/her free act and deed.

IN TESTIMONY WHEREOF, I have hereunto affixed my name and official seal at , this day of , A.D. 2001.

Notary Public Commission Expires

ERRATA SHEET

PAGE	LINE	CORRECTION

RE: Kevin Kiss, etc., et al. vs. Cleveland Clinic Foundation
Cuyahoga County Common Pleas Case No.: 402393

ERRATA SHEET

I, Peter J. Savino, M.D., have read the entire transcript of my deposition taken on the 30th day of October, 2001; or the same has been read to me. I request that the following changes be entered upon the record for the reasons indicated. I have signed my name to the signature page and authorize you to attach the same to the original transcript.

PAGE	LINE	CORRECTION OR CHANGE AND REASON THEREFORE
4	24	conference NOT clinic
99	9	shall not short

Peter J. Savino, M.D.