IN THE COURT OF COMMON PLEAS

MAHONING COUNTY, OHIO

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JAMES BERRY, et al.	)	
	)	
Plaintiffs,	)	
	)	
vs.	)	Case No. 87 CV 726
	)	
DR. R. KALAPOS, et al.,	)	
	)	
Defendant.	)	

- - - - -

DEPOSITION OF BENJAMIN HILLEL EIDELMAN, M.D.

a witness herein, called by the Plaintiffs for examination, taken pursuant to the Ohio Rules of Civil Procedure, by and before Cathyann Simmons, a Court Reporter and Notary Public in and for the Commonwealth of Pennsylvania, at the offices of the Department of Neurology, University of Pittsburgh, Scaife Hall, Pittsburgh, Pennsylvania, on Thursday, September 28, 1989, at 4:20 p.m.

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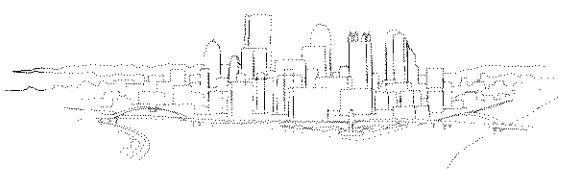

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COUNSEL PRESENT:

For the Plaintiffs:

Michael F. Becker Co., L.P.A.
by Michael F. Becker, Esq.
and
Spike & Meckler
by Stephen G. Meckler, Esq.

For the Defendant Dana P. Arneman, D.O.:

Weston, Hurd, Fallon, Paisley & Housley
by Deirdre Henry, Esq.

For the Defendant Dr. Singh:

Harrington, Huxley & Smith
by Eldon S. Wright, Esq.

For the Defendant Youngstown Osteopathic Hospital:

William E. Pfau, III, Esq.

I N D E X

P R O C E E D I N G S

BENJAMIN HILLEL EIDELMAN, M.D., one of the witnesses herein, having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. BECKER:

Q. Good afternoon, Doctor. Tell us your full name, please? State your last name for us and spell it?

A. Which one do you want first? The last name is Eidelman, E-i-d-e-l-m-a-n; first name is Benjamin; middle name is Hillel, H-i-l-l-e-l.

Q. Doctor, have you ever had your deposition taken before?

A. I have.

Q. I'm just going to review, then, what this is, since you're familiar with the process. This is a question and answer session under oath. I'm here to obtain some information, most importantly your opinions and the basis of those opinions. It's important that you understand the question that I ask. If you don't understand a question, tell me so,

and I'll be glad to rephrase or restate the question.

A. Okay.

Q. It's also important that you answer verbally, because it's difficult for this woman to pick up a head nod. Okay?

A. I will do so.

Q. But unless you indicate otherwise to me today, Doctor, I will assume that you fully understood the question that has been posed. Fair enough?

A. That is fair enough.

Q. All right. Are you an American citizen?

A. Yes.

(Whereupon, Plaintiffs' Exhibit No. 1 was marked for identification.)

(Discussion off the record.)

Q. Doctor, I'm handing you what's been marked as Plaintiff's Exhibit 1. Can you identify that for us, please?

A. Yes. This is my Curriculum Vitae.

Q. Okay. Can you quickly take a look at that and tell me if it is accurate and if it is correct?

A. It's current, and as far as I know, it's

accurate.

Q. Okay. I have just been handed this today, so I have not had an opportunity to look at this in detail. Are you Board certified?

A. I am.

Q. I see that here. How long have you been with the University of Pittsburgh?

A. Since May of 1978.

Q. And your present position here?

A. Associate professor of neurology.

Q. Do you have any administrative responsibilities?

A. I do.

Q. What percentage of your time is administrative?

A. On average, probably not more than one or two percent.

Q. Do you actively teach?

A. Yes.

Q. Do you have a private practice as well?

A. Yes.

Q. Are you a member of a group?

A. The University Neurological Associates.

Q. How long have you been a member of that group?

A. Since its inception, which is about three or four years ago. I'm not sure of the exact date.

Q. And I've asked you prior to this deposition if you have a file on this case, and you've answered in the negative; is that correct?

A. That is correct.

Q. So you don't have any notes or letters or anything you've written on this case; is that correct?

A. That is correct.

Q. When you --

MR. WRIGHT: He does have a letter confirming this deposition. I can get that and show it to you.

Q. That would be the only letter, and that would be from Mr. Wright; and the essence of the letter is telling you the time, place, location, et cetera?

A. That is correct.

Q. Other than that, no letters in your file; is that correct?

MR. WRIGHT: He doesn't have a file.

A. I don't have a file.

Q. You don't have a file today. Then it might be difficult for you to tell, but do you have a recollection of when you received contact, first contact on this case from Mr. Wright? I assume it was from Mr. Wright.

A. It was. It was some time ago. I can't give you a precise date, because that blurs in the past.

Q. I'm sorry. I didn't hear you, sir.

A. That blurs in the past.

Q. It blurs in the past. Can you give us in terms of years or months?

A. I think it was within the last two years.

Q. Within the last two years?

A. Yes.

Q. He's contacted you?

A. Yes.

Q. And, also, within the last two years, you have, at least verbally, over the telephone, given Mr. Wright your opinions; is that correct?

A. We've discussed the case over the

telephone.

Q. Has it been over a year or a year and a half since you've discussed the case?

A. No. We've had several discussions recently, I would say in the last couple of months.

Q. When did you form an opinion in this case, approximately how long ago?

A. I formulated an opinion fairly soon after receiving the records. Then the matter was left in abeyance for several months, and then the case was reopened or I reopened the case; and then I put it aside because there was no immediate action taken, and it was prior to this deposition when we knew that there was a deposition coming up that I reread the documents.

Q. We'll get to that in a moment. But you're saying that you formed an opinion on this case at least over a year ago?

A. When I first got the documents.

Q. Right.

A. Now, that would hinge on the time when I got them. I'm sure Mr. Wright could perhaps give you a time when he first sent me the documents.

B. H. Eidelman, M.D. - by Mr. Becker

Q. Have you written any articles on the subject matter of Guillain-Barre syndrome?

A. No.

Q. Or spinal epidural abscess?

A. No.

Q. I don't have time to go through these publications, so can you tell me what has been your favorite subject matter? Is there a common theme throughout these?

A. Well, the majority of my publications have been done in the field of cerebral blood flow as pertains to the clinical and the experimental situations. Those have been interspersed with clinical reports relating to a variety of unusual clinical presentations that I've encountered over the course of my practice.

Q. CSF, do you have a particular interest in CSF? Is that what you're saying?

A. No. The cerebral blood flow, brain circulation.

Q. Oh, I'm sorry. Such as strokes, such as that?

A. As it would pertain directly to stroke.

Q. So if you met someone at a party or something like that and they asked you what your specialty is, you would probably respond on the nature of stroke; is that correct?

A. Not at all. I would respond and say I'm a clinical neurologist.

Q. But as far as where your keen interests lie, would it be stroke?

A. No. I regard myself as a general clinical neurologist with a research interest in cerebral circulation.

Q. And have you continued that research interest in cerebral circulation up until today?

A. Yes.

Q. I see here that you have also, in addition to journals, contributed at least in chapters in some textbooks; is that correct?

A. That's correct.

Q. And would that be the same subject matter?

A. No. It would be a different interest.

Q. Anything along the line of Guillain-Barre or acute spinal epidural abscess?

A. No.

B. H. Eidelman, M.D. - by Mr. Becker

Q. What was the assignment that you received from Mr. Wright when he first made contact with you?

A. In general terms, as far as I can recall, it would have been to evaluate the records and see if I could formulate an opinion in terms of the appropriateness of the treatment that was rendered by Dr. Singh.

Q. Incidentally, do you know Dr. Singh?

A. No.

Q. You never met him?

A. Not to my recall.

Q. You never had a telephone conversation with him?

A. No.

Q. And what records did you review before formulating your initial opinion?

A. I reviewed two sets of records, the records from the Youngstown Osteopathic Hospital and I reviewed some of the records from the Cleveland Clinic.

Q. Anything else?

A. I think that was the sum total of it.

Q. And prior to formulating your opinion, did

you look at Dr. Singh's deposition or Dr. Arneman's deposition?

A. No, I don't think I did. I'm pretty sure I didn't.

Q. And I understand you subsequently looked at Dr. Miller and Fisher's depositions, correct?

A. Not Fisher.

Q. Just Miller's?

A. Just Miller.

Q. Okay. And what have you reviewed recently in preparation for this deposition?

A. I've looked at the records of the Youngstown Osteopathic Association Hospital and, to some extent, the Cleveland Clinic records.

Q. Anything else, sir?

A. And I have reviewed a myelogram that pertained to his treatment at Youngstown Osteopathic Hospital and the myelogram that was done with CT at the Cleveland Clinic.

Q. Have you reviewed anything else in preparation for this deposition here today?

A. I have refreshed myself in terms of just the clinical presentation of the epidural abscess

largely on the basis of knowing that Dr. Miller was going to be involved. I reviewed the chapter that he wrote in Merritt's book.

Q. Anything else?

A. Basically, that's it.

Q. Have you looked at any journals?

A. No.

Q. What textbooks do you consider authoritative or prestigious in the field of neurology?

MR. WRIGHT: Authoritative or prestigious? Which?

A. In respect to what?

MR. BECKER: Either one.

A. In respect to what?

Q. In the field of neurology, general field of neurology.

A. There are no truly authoritative textbooks in the field of neurology. Because it's such a vast subject, the majority of the textbooks are fairly general and nonspecific and not truly authoritative.

Q. Okay. Let me ask you this, Doctor. What textbooks do you consider the best in the field of

neurology, specifically as to the field of Guillain-Barre syndrome and spinal epidural abscess?

A. There are no specifically good journals on -- books on Guillain-Barre syndrome. Guillain-Barre syndrome is generally very poorly dealt with in most textbooks. There have been a number of articles over the years that have come down, particularly in light of the swine fluid epidemic some years ago; and, again, they were a little bit more comprehensive, but not strictly authoritative, because there's a lot of controversy in each different article.

Q. Which ones do you think would be the best? Let's start with Guillain-Barre, and then we'll talk about spinal epidural abscess, later?

MR. WRIGHT: The best, but not necessarily authoritative; is that what you mean?

MR. BECKER: That's right.

A. I would have to get my file out and give you those names, but there are a bunch of them. There's an article by -- I believe his name was Squash, who reviewed some of the aspects of Guillain-Barre, but not comprehensively. But there

are a whole bunch of articles that --

Q. Do you have a separate file on Guillain-Barre --

A. I do.

Q. -- and a separate file on spinal epidural abscess?

A. I don't have a file on spinal epidural abscess. I have a file on Guillain-Barre.

Q. Again, could I get a copy of that today before we leave?

A. I can let you have it if you want to. I have to talk to Mr. Wright about --

MR. WRIGHT: Well, if there are some articles that you want to make reference to, he can ask you about specific articles, and we can produce the journal citations for you. I'm not going to spend the time today to go through all that file.

MR. BECKER: No. I'm not going to go through it either today.

MR. WRIGHT: But I will be glad to do that.

MR. BECKER: I would like copies of his file on Guillain-Barre, and we'll go from there.

So we have it on the record that you're going to send me copies of the file --

MR. WRIGHT: I'll send you copies of whatever citations to articles that he has.

MR. BECKER: I would like the copies of the articles themselves.

MR. WRIGHT: Well, you can get them from a medical library.

MR. BECKER: We'll be happy to pay someone for the cost of making the photocopies.

MR. WRIGHT: The time is a little short, Michael.

MR. BECKER: I understand that.

MR. WRIGHT: I'm not sure whether I can get all of those things copied or not. I don't know how many articles there are. But I will get you the citations, and if there are a couple of articles that the Doctor says that he relied upon or he thinks are the better texts, I'll be happy to make you copies of those.

BY MR. BECKER:

Q. How many do you think are in there?

A. There are a whole bunch. But I think you

understand that a couple years ago, I was involved in helping in the litigation when the swine flu epidemic came out, and they related to aspects of Guillain-Barre such as epidemiology and causation rather than specific clinical features.

Q. All right.

A. So many of those are not directly related to the clinical presentation.

Q. Okay. But you were citing me one off the top of your head that you found to be the best on Guillain-Barre that you --

A. No, I didn't say the best. There is one article that I know is in that file that deals with some of the clinical presentations. It's not the best.

Q. What is the best?

A. I have no idea. I'd have to go through that file and relook at it and then come up with an answer.

Q. Would you do that before the trial, the arbitration in the case on October 10 and be prepared to testify as to what is the best?

A. I will do that.

Q. And, of course, whatever you consider to be the best, you would also find it to be reliable, correct, or else you wouldn't refer to it as the best?

A. It may be reliable from certain perspectives, yes. But without having them, again, immediately at my memory, I can't answer that question.

Q. Back to authoritative textbooks, have we covered that subject? You don't find any general textbooks in neurology authoritative; is that correct?

A. That's correct, yes.

Q. What about journals in neurology, do you find any specific journals in neurology authoritative?

A. Again, it depends on what particular subject you're dealing with. You have to understand the general articles --

Q. Please understand that my questions are around two subject matters, Guillain-Barre and spinal epidural abscess.

A. There are many articles that appear in the

journals on Guillain-Barre; and some of them are good, and some of them are bad; and they may have a good and bad article in a particular journal. So it's not a question that I could accurately answer.

Q. Okay. I'd like to know something about your previous experience in medicolegal cases.

A. Sure.

Q. Tell me about it.

A. My first experience was several years ago in the early eighties when I was contacted by the U.S. District Attorney here in Pittsburgh to answer -- I was asked if I would help in the defense of some of the litigations that arose out of the swine flu epidemic of 1976, and there were several cases that I was involved in.

Q. That was on behalf of the government?

A. That was on behalf of the government.

Q. Against the patients who were making the claim?

A. Against the patients.

Q. Okay. Anything else?

A. I was subsequently involved on behalf of a plaintiff in a Guillain-Barre case, and I appeared

on her behalf.

Q. Where was that, Doctor?

A. That was in College Park, Pennsylvania.

Q. College Park?

A. College Park. That's where Penn State University is.

Q. What year was that, Doctor?

A. I think that was in early '78. I think it's February, '78. I'm sorry. '88. February of '88.

Q. February of '88?

A. I think so, yes.

Q. And what was the issue there? Failure to diagnose Guillain-Barre?

A. No. The issue was this lady had been vaccinated against flu and developed Guillain-Barre, and the question was whether informed consent and the cause and effect between --

Q. Causation?

A. Yes.

Q. You spoke to the causation issue?

A. Yes.

Q. Okay. Any other cases, Doctor?

A. Yes. I've done some testimony on behalf of the defense in West Virginia, and there was a case that was litigated in Wheeling, West Virginia; and there was a case brought against a doctor for allegedly causing a stroke through the administration of a Vitamin K, and the case was -- the woman's name was Mrs. Shia.

Q. What year was that, Doctor?

A. Oh, that was probably two or three years ago. Again, I can't recall exact time. Two or -- it was within the last two to three years.

Q. Any other cases, Doctor?

A. There was one other case. It went on for a long time. It was a case in the same area. Again, I appeared on behalf of the defense. That was --

Q. Subject matter?

A. Subarachnoid hemorrhage. And that started off a year before and just finished this year.

Q. Okay. Did you testify in that case?

A. I testified twice in that case, but the case was discontinued and then recontinued. So I appeared twice in that case. I appeared for the same law firm in Youngstown, I think last year or

the year before, in a case of medical care -- again for the defense -- in a case against a Dr. Green by a plaintiff in Youngstown. That case is ongoing. It has not --

Q. What is the subject matter?

A. That was a case of failure to diagnose a brain tumor.

Q. And who was the attorney that contacted you?

A. Mr. Blomstrom.

Q. Is that with Mr. Wright's firm?

A. Yes.

Q. Okay. And your other cases in West Virginia, was that a result of Mr. Wright's firm?

A. No, not at all. The one case was -- the attorney on the one case was Mr. Gillenwater, and the other one was a Mr. Noel Foreman.

Q. From what city?

A. They were both from Wheeling.

Q. So other than the Berry case, there is only one other case that you reviewed on behalf of Mr. Wright's firm; is that correct?

A. In terms of medicolegal issues, I would

think that's it that I -- no. There's one other one. Gianfransesco, that I reviewed but I didn't give any testimony.

Q. And what was that case about?

A. That was a lady who developed some kind of problem with change of personality after an aesthetic procedure.

Q. Now, you kind of qualified that in terms of you said in terms of medicolegal relative to Mr. Wright's firm. Did you do any other work for Mr. Wright's firm?

A. I appeared on three other occasions in industrial kind of litigation where I've seen patients and given my opinion. I have not been in court on those.

Q. Have you had a relationship with Mr. Wright prior to him having contact with you on this case?

A. Yes, I have.

Q. And, specifically, how?

A. It was through his associate, a few previous associates, Ms. Katz, who used to be in their firm. She initially contacted me.

Q. And what case was that?

A. That was one of the industrial accidents.

Q. So we have you testifying once on behalf of the plaintiff, and that is on the issue of causation; and you've never testified on behalf of the patient relative to the issue of standard of care; is that correct?

A. That's correct.

Q. And we have you testifying four or five times on behalf of the defendant doctor; is that correct?

A. Yes.

Q. That's other than this case?

A. Yes. And there's one pending in New York I've already done a deposition for. That's, again, a subarachnoid hemorrhage. That's the sum total of it.

Q. The case in New York, is that also in behalf of a doctor?

A. It's an interesting case. I'm in sort of the middle. It's defending a doctor, but at the same time I am a witness against the hospital in a third-party action. So I'm really doing it both

ways.

Q. Doctor, have you ever been a party yourself to a medical negligence claim?

A. I have been sued, but they've all been dropped before they've reached any degree of --

Q. Were any of them involving the subject matter of spinal epidural abscess and/or Guillain-Barre syndrome?

A. No.

Q. During the course of your review of this case, of the Berry case, was there something that, in the course of reviewing Youngstown Osteopathic records, that caused you some question or concern such that you had to contact Mr. Wright and say, I need a clarification on this issue or why did Dr. Singh do that? Did that ever come up?

A. No. Not as far as I can recall.

Q. And you never reduced to writing your opinion on this case --

A. No.

Q. -- whether formally or informally; is that correct?

A. That's correct.

Q. What's a spinal epidural abscess?

A. Spinal epidural abscess is a collection of purulent material, pus, which lies within the spinal canal but separated from the spine itself by the dura, which is a layer of protective material around the spine.

Q. What causes it?

A. It's caused by an accumulation of pus as a result of a bacterial organism getting to that area.

Q. And what's the source, generally, of that bacterial organism?

A. Well, the source may be manyfold. It can come from blood; in other words, the person has an infection in the skin, lungs, and it gets blood-borne and then gets deposited in that region. It can be introduced there directly, if someone stabs an individual with a knife that's infected; sometimes after surgery, it might. Then it might retract there from an infection in the bone, osteomyelitis, and then it moves directly in relation to that.

Q. As far as the bug itself, what's the most common organism found in a spinal epidural abscess?

A. I'd have to refresh my mind on that.

Q. You can't answer that as you sit here today?

A. No. I'd have to look that up.

Q. If one had high blood sugar, does that increase one's risk for developing an abscess?

A. Explain to me what caused the high blood sugar? There are many causes of high blood sugar. I'd like to know what you mean by high blood sugar and the cause of that.

Q. I don't know the cause. Let's assume you see a patient that's admitted through the emergency room and the blood work reflects high blood sugar. What, if anything, is the significance of that?

A. Well, the most common cause of high blood sugar is diabetes, and if you're referring to diabetes, the answer is yes. A diabetic does have a higher risk of infection, because their resistance is low because their immune system is compromised. But there are other causes of high blood sugar.

Q. Tell me.

A. For example, if a person coming to the emergency room was dehydrated and they were given an

intravenous solution of sugar, it would push their blood sugar up.

Q. Anything else, sir?

A. Well, it could be caused by a tumor somewhere that excretes a certain substance that may change the blood sugar.

Q. But if it's from diabetes, that would be a concern to the physician, because that would increase one's risk for an infection?

A. That is correct.

Q. What are the classic and generally recognized signs and symptoms of spinal epidural abscess?

A. Well, we divide these into constitutional, local, and then the effects of the abscess on the spinal cord; and it usually will often occur in the situation where a person is ill, has a constitutional illness, is febrile, tired, lethargic, exhibits malaise, which is a general lack of strength; in other words, a constitutionally ill individual who may or may not have an overt sign of infection somewhere. The infection may be in the skin; it may be elsewhere in the system.

Q. Okay.

A. And then they'll develop some kind of pain in the back, and the pain can be quite, quite severe.

Q. Okay.

A. And then the pain, the localized or nonspecific pain is followed by what we call radicular pain. Irritation of the nerve roots can cause pain of a different kind, not localized but spreading in the distribution of the nerve root.

Q. Resulting in paresthesia?

A. No. No. That is just pain.

Q. Okay. What's after that?

A. And after that, after the epidural abscess expands or as the epidural abscess causes thrombophlebitis or inflammation of the arteries, it will cause cord softening, stroke of a spinal cord, and then paresthesia and weakness; paresthesia meaning a kind of numbness or sensory symptom will develop.

So the cord symptomatology can be due to either pressure on the cord as the abscess expands and pushes on the spinal cord or it can be caused by a secondary or what we call vascular compromise,

which is a stroke of a cord; and that leads to the disastrous complications of weakness, loss of bladder control, and loss of feeling in the body.

Q. Marked sensory changes?

A. Indeed, if the cord is severely compromised, sensory changes occur.

Q. Throughout the whole body or at least not in isolated parts of the body?

A. Can you break that down into --

Q. Well, as compared to Guillain-Barre where you might have sensory losses generally, if at all, with the hands and the feet?

A. Well, Guillain-Barre can suddenly start off with a tingling or a sensory loss in the feet. It doesn't essentially have to be dominant in the hands.

Q. It was a poor question. Let me reword it. As far as sensory losses with -- if you're going to have sensory losses with epidural abscess, it's not going to be so localized; it's going to be more of the lower part of the body?

A. It will be at the site below the involvement. In other words, if the epidural

abscess was in the neck, it would be from the neck down, if it reached that point.

Q. I gather that it's your opinion that spinal epidural abscesses are rather uncommon in occurrence?

A. They're not very frequent. They're distinctly rare.

Q. Have you ever encountered one, Doctor?

A. I have during the course of my life. I've worked in several situations where I've encountered them.

Q. Approximately how many, Doctor?

A. I would think half a dozen during the course of my how many years since I've been practicing. I've practiced as a neurologist since the early seventies.

Q. Although it may be rare in occurrence, you would acknowledge that it's a commonly known disorder in medicine?

A. Well, commonly known, it's difficult to know what you mean by that. It's commonly recognized.

Q. That's fine. And it's been commonly

recognized for a number of years in the medical community?

A. Well, the existence of epidural abscesses has been known for many years. It's not something that's a new development.

Q. 20 or 30 years?

A. I would think a lot longer. If you read some of the classic textbooks, I think you'd probably find this described.

Q. And this disease or entity of spinal epidural abscess is discussed in medical schools, correct?

A. It is, yes.

Q. And particularly during most residencies, it's broached at some time or another?

A. It would be indeed, yes.

Q. What's the proper way to diagnose spinal epidural abscess?

A. The appropriate way would be with a myelogram. That would be a useful way of doing it.

Q. Is that the gold standard, Doctor?

A. It may be changing now with the development and improvement in techniques, and I'm

talking about the presence of MRI. But we go back to when this -- this was '85. I think the MRI technology then hadn't quite advanced. The gold standard would have been the myelography.

Q. What kind of results of a spinal tap would point to a spinal epidural abscess?

A. There's probably no classic sign, because the actual infection lies outside of the spine. It's what's called a parameningeal infection abscess. In other words, the actual spinal fluid is not invaded by the bacteria. Some of the cells that escape from the adjacent infection may get in there. So there's nothing classic about it at all. I would not say that there is any specific CNS finding.

Q. I'm not asking for specifics. But I'm saying, generally, what would you expect to see by way of protein, by way of white cells, by way of red cells?

A. What I would expect to see is a rise in the protein and the presence of white cells in the spinal fluid, which would be a mixture of lymphocytes and maybe an occasional polymorph.

Q. Would you expect, generally, the ratio of

lymphocytes to polys or segs to be something in the range of 9 to 1 or 95 to 5?

A. I think it's variable. I've seen parameningeal infections where you may see very few cells and possibly get a ratio, and on the other hand, you may see an abundance of polymorphs. It's not something that's cast in stone. It varies.

Q. I understand it's not cast in stone. But, generally, the proportion with lymphocytes is predominant as compared with polys or segs, vastly predominant?

A. I would expect to find more lymphocytes.

Q. Can you agree with me that it would be vastly predominant, generally? I understand it's not cast in stone. But as to the literature, Doctor.

A. As a general term, you'd expect to find more lymphocytes. It has more lymphocytes.

Q. What about red blood cells?

A. That would not be a characteristic feature.

Q. What would that mean to you, a red blood cell count?

A. Well, there are several things a red blood cell could mean. Has the patient had a spinal tap

and a blood vessel been torn?

Q. Problem from the tap?

A. From the tap.

Q. Any other cause?

A. Is there some kind of hemorrhagic component? Is there some bleeding from what we call a hemorrhagic inflammation or a rupture of a blood vessel or a rupture of some kind of vascular structure? But, again, they're not a specific finding.

Q. Does red blood cell also mean irritation of the meninges?

A. No. It's more white blood cells that you find with that.

Q. All right. How do you confirm the diagnosis of spinal epidural abscess? I think we've already talked about that in terms of myelogram or --

A. Final confirmation would be going in and finding the pus and surgery.

Q. Okay. And I guess, then, that brings us to what is the appropriate treatment, and that's a decompression of the area?

A. That is the generally accepted treatment.

Q. And antibiotic therapy?

A. Antibiotics are used in conjunction.

Q. What's your opinion relative to the prognosis of one who has a spinal epidural abscess if there's diagnosis and timely intervention, surgical intervention just prior or within 24 hours after one develops paralysis?

A. That depends on what pathological entity has supervened in terms of causing the neurological deficit. There are two processes which I've already referred to in an earlier part of this deposition. There's the compression of the spinal cord by the collection of pus, and then there is the, what we call the ischemic myelopathy, or in lay terms, the cord develops a stroke as a result of compromised blood flow to the spinal cord. The latter, once that has occurred, even timely intervention, unfortunately, has no beneficial affect on; because you're talking about a loss of blood flow to the spinal cord --

Q. "The latter" being the compression or ischemia?

A. Ischemia. And once ischemia has developed

and the patient has developed a total transverse myelitis type picture, surgical intervention, unfortunately, is not going to help the situation. If, on the other hand, the problem that the patient presents with is largely due to expansion of the axis, pressure on the cord, distortion of the spinal cord, timely intervention there can prevent the development of disastrous neurological complications.

Q. How do you tell whether you've got ischemia or the actual direct compression working at the time you examine a patient?

A. It's not possible to truly determine that with any degree of accuracy, and the best way would be the myelogram. But from a clinical perspective, if the patient presents to you and they have a total loss of function below the level of abscess and there's no bladder function, there's no motor function to speak of, there's a loss of sensory function, the likelihood of any return of function, no matter what one does, is extremely remote.

Q. What's the basis for that opinion, Doctor?

A. The basis of that opinion is that once one has a severe degree of involvement, it indicates

either the cord has been severely compressed and remained compressed for some time and the prognosis of that kind of compression is not good with any kind of condition, particularly if it's acute; and the other one is that once the cord has suffered a stroke, that's usually irreversible.

Q. What's your authority for that, Doctor?

A. The stroke situation is, it's common knowledge that once there's been an ischemia to any structure for any period of time, it's not likely to reverse.

Q. Well, when you say "ischemia," that doesn't mean an infarction?

A. Well, I mean ischemia and subsequent infarctions, what I call -- ischemic necrosis. That is an irreversible situation.

Q. Okay. And how do you tell that you have ischemic necrosis? You're saying by the myelogram or by the symptoms? Are you saying that even if one is, by definition, if one has total sensory loss and paralysis, if he has this ischemic aspect --

A. No. If you listened to me earlier, I said either there's been significant and severe

compression of the spinal cord.

Q. Right. Which is reversible.

A. If it's --

Q. If it's timely done.

A. If it's done timely. Or else there has been a secondary or an additional process, and that's the ischemia.

Q. Right.

A. Which is not reversible.

Q. Okay. Ischemia leading to infarction?

A. Yes.

Q. You can have ischemia and still have reversibility, correct?

A. If the ischemia has been present for -- there's total ischemia and it's dealt with and you can reverse the blood, a situation where you can restore the blood flow within, I'd say, six hours maximum.

Q. How do you know whether you have partial ischemia or complete ischemia resulting in infarction?

A. You have to rely on the clinical presentation or else examine the spinal cord, which

is not possible in a live patient.

Q. Right. But are you telling me that, given whatever clinical presentation, you still can't tell when you're looking at a patient and tell this is ischemia or this is compression or this is a combination of the two? Can you?

A. No. Not by looking at the patient. But if you examined the patient and you have some -- for example, if you have a patient who presents with a transverse myelitis, in other words paralysis from a certain level down -- in other words, loss of sensation, loss of bladder function -- and you do a myelogram on that patient and there's no evidence or very little evidence of compression of the spinal cord, then you have to assume that it's not the pressure on the spinal cord that's caused the problem but some other mechanism; and in a situation of an epidural abscess, the other mechanism which is known to occur is ischemia. So by a process of elimination after doing a myelogram, you can come to that conclusion.

Q. But can you cite me any authorities to support the position that -- I've asked you this

before. I don't know if you've directly responded -- any authorities that support the position that if you have this ischemia that once the paralysis has set in that it's irreversible? Can you point to a journal article or a textbook in neurology?

A. It's something which is a commonly held and it's common knowledge in our teaching circles amongst the neurosurgeons, and I dare say if I researched it, I could find something for you. That's the dictum that we teach to our residents, to our medical students, that the neurosurgeons will offer us when they approach such a problem. I mean, that's just one of the facts of medicine. It's one of the dogmas when we grow up.

Q. What's your opinion as to the reversibility prior to total paralysis with timely recognition and intervention?

A. If the problem is due to pressure, accumulation of pus, then the chances of reversibility are definitely there; and it depends how much pressure there's been, how long the situation has been in effect for. Very early on, when the earliest symptoms develop, that's the best

chance. If, for example, the inflammation around the spinal cord has led to thrombophlebitis and vasculitis and there is a process of ischemia and cord necrosis -- that's called death developing -- even at that point in time, reversibility may not be the rule when you decompress.

Q. Well, do you have an opinion or will you have an opinion as to whether or not Jim Berry on November 9, 1985, when the paralysis, according to Dr. Singh, was rather set in, whether or not that was secondary to ischemia or secondary to compression, and if so, what's the basis of that opinion?

A. I believe that the lesion as described by Dr. Singh at that time was due to ischemia.

Q. Okay. Basis of that opinion?

A. The subsequent myelogram done at Cleveland Clinic some days later failed to show significant cord compression. The dye, as they did it, went around the cord in all directions; and the cord, while being a little displaced, was not to any extent compressed. So I could see no anatomical basis for a major compressive syndrome.

Q. Let's go over that again. The myelogram at the Cleveland Clinic reflected what, Doctor?

A. It showed displacement of the cord at the dye, the -- the contrast media is a better term -- was actually -- filled the spaces around the cord in all but one tiny area, and there was no obvious distortion of the cord anatomy such as you would expect with something pressing against it, pressing into it.

Q. Well, an abscess can break off and spread, though; can't it, Doctor?

A. Yes. But that doesn't -- sure it can. But it's liquid, and it will take a plane in the area of least resistance, which is above and below the spinal cord.

Q. Or it can go into the spinal fluid itself?

A. An abscess can rupture through, eventually, into the spinal fluid and cause a meningitis. But this is not the situation that prevailed here.

Q. Any other explanation as to why the Cleveland Clinic myelogram wasn't so clearly diagnostic?

A. No. I think it was diagnostic in the

sense that it did not show major cord compression. It did show a collection of material behind the cord and displacing it to one side, and that, in a sense, was important.

Q. Did you compare the films of the Youngstown Osteopathic Hospital to the films of Cleveland Clinic?

A. I compared them -- first thing is the myelogram that they did at Youngstown was done with Pantopaque, which behaves in a very different manner to the contrast material that they used at the Cleveland Clinic. I'm talking about the first myelogram. And the study, I didn't think, was very informative, because while it showed some obstruction, I didn't get any idea from that as to what the anatomical area around that obstruction was like.

They subsequently repeated the myelogram with Amipaque from above, which, while the study was somewhat less refined, again tended to confirm what the Cleveland Clinic wound up showing. In other words, they were able to get the dye around the cord. So there was no major compression at that point in

time.

Q. Do you have any other explanation for why, other than the different types of contrast material, as to why the myelogram showed a blockage on the cord and why the Cleveland Clinic didn't show a blockage on the cord?

A. I think it's important, and I have information, that the Pantopaque being somewhat thicker and less likely to flow was caught up in that region on that basis. In other words, the first myelogram used an older form of contrast agent which behaves, as I said before, very differently to Amipaque and is, basically, inferior at demonstrating anatomical details.

Q. And the second myelogram is what material?

A. They use something called metrizimide or Amipaque.

Q. What's Guillain-Barre syndrome?

A. Guillain-Barre syndrome is a condition which is related to inflammation of a number of nerve roots, and the technical term is inflammatory polyradiculopathy; and what that means is the nerves as they emerge from the spinal cord run for a short

distance before breaking up into their branches in that area. The distance from the spinal cord to their branching is known as the nerve roots, and these undergo inflammation and lymphocytic infiltration; and it usually occurs in the wake of some kind of antecedent infection. I'm talking about 10 days, maybe 3 weeks to 6 weeks after a common flu-like illness, maybe after a flu shot. It sets up an immune disturbance in the body which provokes the inflammation.

Q. What are the classic signs and symptoms of Guillain-Barre?

A. I avoid "classic signs." I think it's more accurate to state the more commonly seen signs. "Classic" refers to the ancient Greeks, and I think that's where it should be used, not in this situation. In medicine, things vary a lot. The commonly seen signs are a symptomatology characterized by tingling in the extremities and may be confined to the lower extremities, sometimes the upper extremities. This can be quite disturbing and followed shortly afterwards by the development of weakness which commonly ascends from the legs

distally, going more proximally involving the trunk muscles, the upper lung muscles, the muscles that control breathing, control swallowing, control the face, control the eye movements. So you have a situation of severe generalized paralysis as the condition evolves.

Q. What about sensory loss with Guillain-Barre?

A. Sensory loss can occur, and sensory loss can involve all the modalities of sensation, live touch, pinprick, vibration; and it often will be in the distal distribution, in other words, lower down on the extremities.

Q. Right. Is it generally accepted that if you have sensory loss with Guillain-Barre, it involves the gloves and sock areas of the limbs?

A. Yes. Glove and stocking. That's distal distribution. Yes.

Q. Okay. Isn't there generally a total loss of reflexes with Guillain-Barre?

A. Generally, but not always. There are exceptions to that.

Q. And generally, another exception, but is

the patient generally afebrile?

A. As a rule, there's no major constitutional component.

Q. Generally, the weakness affects most of the limbs, all the limbs?

A. It varies. It can start off in a distribution in the the lower limbs, remain confined to the legs, and then ascend a few days later to the upper limbs; and by the time you see the fully developed form, in most situations, all the limbs are involved. But the rate of evolution may vary from patient to patient.

Q. What about urinary retention with Guillain-Barre, Doctor?

A. That's something that's not -- that's less of a problem. It can occur in some situations.

Q. Would you agree with me that the literature reflects that urinary retention is generally rare in Guillain-Barre?

A. Yes. It's less common. It's not as common.

Q. What are the generally anticipated results after spinal tap with Guillain-Barre?

A. Again, I'm going to ask you: When was the spinal tap done? Early in the illness, during the middle of term of the illness, or late in the illness?

Q. What do you define as "illness"? First paresthesia?

A. First symptoms, yes.

Q. When you say "first symptoms" --

A. The paresthesia.

Q. Let's assume within 24 hours of the paresthesia, what --

A. What will often be found in the early course of the disease --

Q. The early course?

A. -- would be a rise in the protein; or in some situations you may find nothing, and that's delayed for several days before the protein.

Q. Doesn't the literature generally reflect that the protein takes a few days to rise?

A. Sometimes what will happen is that the disease will have been evolving before the patient truly presents himself, and you may very well find proteins higher in that extent.

Q. Do you recognize that the literature generally says that generally a few days after symptoms present themselves is when you see an elevated protein?

A. Often, that will occur. But that's not invariable.

Q. I understand, Doctor. Go ahead.

A. And then, with this, there may be a variable number of cells in the spinal fluid which are called lymphocytes. They'll vary from zero to a few up to a hundred would be acceptable.

Q. Isn't Guillain-Barre known as the acellular disease; in other words, there is no parallel generally between protein and the white blood cells?

A. And that is what has generally been portrayed, but if you look at some of the writing on it, you will find that there are reports of cells being present in the spinal fluid.

Q. Some cells?

A. Some cells, yes; and they can be quite significant.

Q. But it's an exception to have cells with

Guillain-Barre; would you acknowledge that, Doctor?

A. It's more common not to have cells.

Q. That's fair enough. So it's more common not to have cells. Now, let's talk about the differentiation of the white cells for a moment, between the lymphs or the segs or the polys. What is more common? When you're talking about Guillain-Barre that shows some cells, what's more common?

A. The more common finding would be lymphocytes.

Q. Okay. Did I ask you if red blood cells can mean meningeal reaction by way of irritation?

MR. WRIGHT: Yes, he did.

A. Yes, I did.

Q. And did you answer that?

A. Yes, I answered that.

Q. Affirmatively, yes?

A. No. I said the red blood cells are more likely as a result of some kind of hemorrhagic inflammation.

Q. Okay. Doctor, moving away for a moment, quickly, to something called "differential diagnosis,"

tell me what that means?

A. It's a list of probable causes of the clinical syndrome that one puts out when one sees a patient with a particular presentation. In other words, you say, can it be one of the following? And that's based on the probabilities of what you think is likely to be causing this.

Q. What is a consulting neurologist, and what would you deem his responsibilities to be to the attending physician who requested the consult?

A. As I understand it, the consultant neurologist is a specialist and neurologist who provides expertise in the area of neurology to somebody in a different field, whether it be internal medicine or neurosurgery; and his responsibility is to either confirm or add to the initial diagnosis made by the referring physician.

Q. Can we agree that a physician has a duty to consider all potential diagnoses within his differential?

A. Yes.

Q. That's his responsibilities?

A. Yes.

Q. And can we agree that to meet the appropriate standard of care a reasonably possible diagnosis that can be life threatening or potentially permanently disabling ought to be ruled out within one's differential?

A. That's important, too.

Q. You would agree with that?

A. I would agree with that.

Q. And, of course, I guess it goes without question that the physician, whether they're consulting or attending, has to have a complete history to assist him in his diagnosis and the differential?

A. As complete a history as is possible to obtain from the patient, yes. That doesn't necessarily mean that the history that he gets is complete. Because a history is very subjective; and it will depend on the, to a large extent, on the patient's memory and his willingness to impart knowledge, and other psychological factors come in, as well.

Q. I forgot to ask you this, Doctor. You would agree that a spinal epidural abscess is a

medical surgical emergency, correct?

A. Yes.

Q. Now, since I don't have a report from you, I really don't know what your opinions are relative to standard of care by Dr. Singh. I think we've touched on the issue of causation already. Is there anything else you'd like to tell me about the issue that you feel that Mr. Berry's situation was irreversible by the time Dr. Singh saw him on the 9th? I assume that's your position.

A. That is my position.

Q. Okay. Any other basis than what you've already told me and if you've forgotten anything? Anything else you want to tell me?

A. I think I've outlined the important opinions that I'm going to put forward.

Q. Let's talk about standard of care. What's your opinion of standard of care rendered by Dr. Singh?

A. Standard of care, on the basis of internal -- if he made a diagnosis of Guillain-Barre, the standard of care in terms of that was appropriate if that patient did, indeed, have Guillain-Barre, what

he did was appropriate. He did not, in retrospect, make the diagnosis of a spinal epidural abscess, and that clearly was the correct diagnosis; and the diagnosis of a -- I don't believe that not making a diagnosis, a correct diagnosis, deviates from the standard of care. Because medicine is not something that, as you know -- and you've heard this many times -- is not a precise science; and there is room for maneuvering, and there is a margin of error that, even with the best of intention and the best of care, you can't always foresee.

Q. But you would acknowledge if a spinal epidural abscess was within Dr. Singh's differential on the 9th, he should have taken steps to rule it out on the 9th, correct?

A. It depends how much emphasis he placed on it.

Q. Right. Right.

A. If he strongly thought of it, then he should have. On the other hand, he may have said, well, maybe this is a spinal epidural, but I really don't believe so and I'll see what evolves.

Q. I know we can't be certain, because we're

looking through the retrospectoscope. But we have to get some opinions here, Doctor, and I want to know if you think, in all fairness, that Dr. Singh should have had spinal epidural abscess within his differential on the 9th?

A. I believe that this -- it's easy to be critical, but I think there was enough evidence to suggest that that could have been a factor.

Q. So the answer to the question would be yes?

A. Yes.

Q. Okay. So we've established that he should have had spinal epidural abscess within his differential on the 9th, and we know that he didn't take steps on the 9th to rule it out, correct?

A. That is correct.

Q. And you've already acknowledged that a physician has a responsibility to rule out any potentially life threatening or permanently disabling conditions as the appropriate standard of care. Given all that, Doctor, you would acknowledge, then, that Dr. Singh, by failing to consider in his differential on the 9th spinal epidural abscess and by failing to take steps to rule it out, as we

previously agreed he was supposed to do, that would be something less than the appropriate standard of care?

A. I agree that he failed to make the diagnosis, and I think that it, again, would depend on the particular flavor or the particular input that he got from the patient's clinical exam in terms of what he should have done at that night. It's --

Q. Doctor, I'm going to have her repeat that last question that I gave, and listen to it. See if you can directly respond to it. If you can, fine. If you can't, fine. But I'd like you to try to directly respond to that last question, which was somewhat lengthy, but --

MR. WRIGHT: That was a --

Q. Do the best you can, Doctor.

MR. WRIGHT: Read the question back. That's fine.

(Whereupon, the question was read by the court reporter.)

MR. WRIGHT: He gave an answer that was, in your view, not responsive, and let me just

say that I think that the question is a little bit too broad. I think that when you say any potentially hazardous or whatever sequelae that might follow in giving a situation, you're really being so broad that it makes it difficult to pin this down and say that anything that might be dangerous to a patient should be always considered by a doctor within the standard of care, because that would depend on the circumstances of each case; and I think you're overly broad in your question, Mike. I just think it would be difficult for the Doctor to answer that.

BY MR. BECKER:

Q. Can you answer that question, Doctor, directly? Whether or not given your admission that a physician has a duty to rule out anything within the differential that might be life threatening or potentially and permanently disabling, given your already admission that Dr. Singh should have had within his differential on the 9th spinal epidural abscess, and given our total acknowledgement, even Dr. Singh's acknowledgement, that he took no steps to rule out spinal epidural abscess on the 9th,

given those facts, logically, Doctor, would you concede that Dr. Singh on the 9th rendered something less than the appropriate standard of care?

A. Given that scenario and the basis of the very precise terms that you've given me, I would say yes. But I think that does not necessarily reflect what truly happened at the time in terms of the clinical flavor that was imparted to Dr. Singh in encountering Mr. Berry.

MS. HENRY: Could you just read back that answer?

(Whereupon, the answer was read by the court reporter.)

Q. Thank you, Doctor. Doctor, would you agree with this, that the symptoms of lower limb weakness which turns into numbness and ascending paralysis is consistent with spinal epidural abscess?

A. Yes.

Q. Would you agree that the symptom of a fever of 102 degrees added onto those previous symptoms is also consistent with spinal epidural abscess?

A. Yes. But at the same time, it doesn't exclude other conditions.

Q. And would you agree that the symptom of midthoracic back pain is also consistent with spinal epidural abscess?

A. Yes.

Q. And the symptom of loss of urinary control is also consistent with spinal epidural abscess?

A. It's consistent with pressure on the spinal cord, which is, again, consistent with spinal epidural abscess.

Q. And you agree that the symptom of full arm strength, although paralysis in the lower limbs, is also consistent with spinal epidural abscess?

A. You're not being precise enough. You have to say consistent with spinal epidural abscess at a particular level.

Q. In the midthoracic region? Fair enough?

A. Yes.

Q. And total lower limb sensory loss is consistent with spinal epidural abscess?

A. It is.

Q. And the spinal tap results of the first

spinal tap at Youngstown Osteopathic, which I'm sure you are familiar with, those are consistent with spinal epidural abscess?

A. Again, if I remember, there was something like 60-plus percent of lymphocytes, 37 percent of segs. Is that the one?

Q. Yes.

A. That would be consistent.

Q. Now, turning to Guillain-Barre, for a moment, would you agree that a temperature of 102 degrees or higher is inconsistent with Guillain-Barre, generally, assuming no pneumonia has set in from the paralysis?

A. Well, that is the point I was going to make.

Q. Okay. Aside --

A. As a result of a constitutional illness that preceded or was a complication, yes.

Q. And would you agree that loss of leg strength without any type of loss of arm strength is inconsistent with Guillain-Barre?

A. No, I don't agree with that.

Q. Okay. Fair enough. Can we agree that

marked loss of vibratory sense in the lower extremities and the total extremities is inconsistent with, generally inconsistent with Guillain-Barre?

A. It's an unlikely situation, but not totally inconsistent with it.

Q. Would you agree that if an individual had a reflex preserved, that would be inconsistent with Guillain-Barre?

A. No.

Q. Would you agree that the spinal tap as we know that occurred on November 8, is that, generally, generally inconsistent with Guillain-Barre?

A. I would say yes.

Q. Doctor, would it be help you or would you factor in this information in deciding whether or not to put spinal epidural abscess within your differential if you knew a patient who had ascending paralysis, had history of abscesses, history of fistulas, or fissures, and for which he had surgery and had high blood pressure?

A. That would increase the suspicion.

Q. Moving it up on the index of suspicion?

A. It would increase -- yes.

Q. Were you aware that that was applicable to Mr. Berry at the time that he presented to Dr. Singh?

A. As far as I recall, it did not appear in the records.

Q. That would be something you would want to know?

A. Yes.

Q. Whose responsibility is it to take the history from the patient?

A. The physician who encounters the patient.

Q. But would the presence of a small lesion on one's abdomen that's been chronically draining be significant in your decision as to whether or not to include spinal epidural abscess within your differential for a patient who, again, presents themselves with ascending paralysis?

A. Where on the abdomen is it? I mean --

Q. I believe it was around the belly button. But I'm not certain of that.

MR. WRIGHT: I'm not sure that there was anything in the record about that. Is there?

MR. BECKER: Yes. Check the

Cleveland Clinic record.

MR. WRIGHT: I mean in the Youngstown Osteopathic record.

MR. BECKER: No.

MR. WRIGHT: I've never seen any.

Q. Would that be significant? Would you want to know that?

MR. WRIGHT: Saying it was there. If it was there then. You're assuming it was there then at that point.

MR. BECKER: Yes.

A. It would --

Q. Again, that would increase your suspicions?

A. It would increase my suspicions.

Q. And would the neurologist and the internist have a responsibility when a man comes in to their care who has ascending paralysis, given Mr. Berry's symptoms, to do a complete body examination, to look him over?

A. The internist would be the one who would be responsible for that. The neurologist would often concentrate on the neurological aspects of the medical exam and not necessarily -- if he had a good

rapport and knew who he was dealing with in terms of the internist, it's quite acceptable to rely on his findings.

Q. It would be the internist's responsibility to bring that to the neurologist's attention if he so discovered something?

A. It would be the internist's responsibility to describe the general medical findings to the neurologist.

Q. Which would have included an abscess on his belly, a lesion?

A. It would include anything relevant to the presentation.

Q. And would a lesion that's been chronically draining, would that be relevant to this presentation?

A. It would be relevant, yes.

Q. If you were a neurologist, you'd want to know that from the internist?

A. I would like to have all the information from the internist. Not only that, but everything.

Q. That's something that, if the internist had discovered, he should have relayed to Dr. Singh,

correct?

A. I believe that should have been done.

Q. Okay. Consistent with the appropriate standard of care for an internist?

MS. HENRY: Objection.

A. Well, that's something that you'll have to -- I'm not a judging internist.

Q. Fair enough, Doctor. And what would the significance of that be to you of a small lesion that had been chronically draining on one's abdomen?

A. Well, a small lesion that's been draining on an abdomen just suggests a focal area of sepsis, and that may be of no significance whatsoever or it may be indicative of something more widespread, like a septicemia with emboli to that area. It has many possible connotations. Could it be an inflamed insect bite? Could this person have some kind of neurological complication of an insect bite that could have done this? It doesn't necessarily point in one direction.

Q. Doctor --

MR. WRIGHT: Excuse me. Where did you find that on the Cleveland Clinic record? I

mean the reference to that lesion. There must be some discrepancy in their record about that, because looking at their --

MR. BECKER: I'll show it to you later.

MR. WRIGHT: In terms of their physical examination, it doesn't -- the only notice of -- it says, "No recent infection aside from flu-like symptoms. No dental work. No upper respiratory infection or skin infection. Has chronic acne on back." That's what it says here. It may be in here, but I don't know where it is.

MR. BECKER: You can take my professional word, it is in there, and I'll find it for you. But I don't want to do it right now, and I'll let you know.

MR. WRIGHT: All right. Go ahead.

BY MR. BECKER:

Q. Doctor, maybe to save some time here, I've got a list of all the symptoms he has, and going through, we've talked about Guillain-Barre and spinal epidural abscess. Would you acknowledge that taking the whole clinical picture, by the time

Dr. Singh saw Mr. Berry, that that clinical picture was more consistent with spinal epidural abscess than Guillain-Barre?

A. The picture that he presented with was consistent, on my analysis, with what I would call a transverse myelitis, with some condition that would cause cessation of conduction or some cessation of function in the spinal cord at a particular level relating to where he found the cessation, of which there are many causes.

Q. And spinal epidural abscess falls in there --

A. Falls in there.

Q. -- but Guillain-Barre doesn't fall in there, generally?

A. No. But there are conditions in which Guillain-Barre may be a part of something called myeloradiculopathy where you get combinations of the Guillain-Barre and myelitis, as we call it.

Q. Let me see if we can move this along. Would you acknowledge that the total clinical picture, generally, is more consistent with spinal epidural abscess, everything considered in your mind, as compared to Guillain-Barre?

MR. WRIGHT: In retrospect? Is that what you mean?

Q. On the 9th, at the time Dr. Singh saw him, generally?

A. The picture is a little more like what I would call a transverse myelitis, of which one of the causes would be epidural abscess.

Q. Thank you, Doctor. I want to turn back to November 8, 1985. That's the day of Mr. Berry's admission to the hospital. As you know, Dr. Singh did not see him until the 9th; and there's going to be some dispute here as to what was relayed to Dr. Singh on the evening of the 8th, and I'd like to ask a few questions about what you think the appropriate standard of care is for a neurologist who's called on for consultation who's not in the hospital and receives a call essentially saying that the patient has certain signs and symptoms, marked weakness, ascending paralysis with the spinal fluid results being relayed, or maybe just saying that the spinal fluid results are somewhat abnormal. Do you think a neurologist has a duty to promptly respond that evening?

A. It depends on how much faith he has in the referring doctor. In other words, if he has a good rapport with that doctor, knows of his capabilities in terms of physical diagnosis, then it's appropriate to give advice by telephone. That's the way we all behave. It depends entirely on what flavor was imparted, what sense he got in terms of the urgency of the situation, of --

Q. Well, let me just ask you this, Doctor. You're at home. You get a call from an ER doctor. You're the neurologist on call. They say, we've got a man in here. He's got ascending paralysis, marked sensory changes, and abnormal CSF.

MR. WRIGHT: I object to -- wait a minute. Stop right there. Because, at this point, I don't know that there is any evidence in this case, unless you can point it out to me, that Dr. Billak or Dr. Arneman called Dr. Singh. There's no evidence at all.

MR. BECKER: If you look at Page 28 and 29 of Dr. Singh's deposition, he restates as to what was said. I'm not saying that it was Dr. Billak or what doctor called or what person

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called. I'm --

MR. WRIGHT: Nobody called him from the emergency room. You indicated that. That's not the point. The point --

Q. All right, Doctor. You get a call. Someone's recently been admitted to the hospital. You're the neurologist on call. You know that there's an ascending paralysis. You know there's marked sensory loss. You know that the spinal tap results are as we have it here. Are you going to tell me that you would not respond to the hospital?

A. No. You said, initially --

MR. WRIGHT: Objection. Wait. What he would do is immaterial. What you want to know is what the average practicing neurologist would do under the same or similar circumstances.

MR. BECKER: But I'm going to ask my question. You can enter an objection.

MR. WRIGHT: Well, I did.

A. Would you just change your question? You said the spinal fluids are abnormal. Now you just said spinal fluids as are recorded here. Which one do you want me to answer to?

Q. Well, Dr. Singh did not state that he knew that, specifically, the spinal fluid was told to him. So assuming that he was simply told that the spinal fluid was abnormal, you would agree that the responsibility of the neurologist is to get the data from the spinal tap results, correct?

A. That would be one of the things to do.

Q. So assuming -- and that's the appropriate standard of care. If someone calls you and says I have, an abnormal spine fluid, you're going to say, well, what is it, right?

MR. WRIGHT: Objection. There is no evidence that he was aware of that during that evening.

MR. BECKER: Okay.

Q. Correct? So assuming that you make inquiry consistent with the appropraite standard of care and that information is relayed to you, the specific information or data from the first spinal tap is relayed to you, would you agree with me, Doctor, that the appropriate standard of care for any reasonably competent neurologist is to respond to the hospital under that scenario?

A. Again, I don't know what exactly was conveyed to Dr. Singh. I'm not talking about the spinal fluid. I mean, what was told to him in terms of the patient's overall status? If this was given to him and it sounded exactly like a Guillain-Barre and he, from the phone, had no idea that there was a transverse myelitis or some transverse process going on, then he obviously would respond in different terms to a picture presented to him which suggested that this guy's got a cord compression.

Q. He told me that he had marked weakness, some sensory symptoms and reflexes were depressed, and the spinal fluid revealed increased proteins and some cells.

A. Okay. The general picture as presented there is very typical of a Guillain-Barre, and if the emphasis was, again, how many cells, they might say -- it depends, again, how specific the person relaying that information was.

Q. But there's a duty and responsibility of the on-call neurologist to elicit this information, correct?

A. Well, assuming somebody volunteered that

there's just a few cells there and they weren't very specific about it and you got the impression that there was a nonspecific cellular reaction, under those circumstances, it's appropriate to make the diagnosis of Guillain-Barre.

Q. You don't think it's appropriate to elicit more information?

A. Well, again, it depends on how much was given to him and how much of the clinical picture was portrayed.

Q. Right.

A. You're asking a question which is difficult to answer, because we're talking hypothetically.

Q. Well, it is hypothetical in a way, Doctor. But I have to understand what truly is an on-call neurologist's responsibility. If he's called at night at home and we got a problem, that on-call neurologist has a responsibility to do one or two things. See if you agree with me. One, either come to the hospital and make his own clinical analysis, correct?

A. That is correct.

Q. Or, two, make damn well sure that he gets a complete, accurate, detailed explanation of the exact scenario and situation of the patient before he makes that determination to stay home and wait till the next day, correct?

A. Correct.

Q. Doctor, what are you charging me for your time here today?

A. $200 an hour.

Q. And is that the same thing you charge Mr. Wright?

A. For depositions, yes.

Q. You've had an opportunity to review Miller's deposition?

A. Yes.

Q. Is there anything in Miller's deposition you would take strong issue with?

MR. WRIGHT: If you want to be specific, you can ask him. I think you have to --

MR. BECKER: I will.

Q. But anything that jumps out from your recollection?

A. He made an issue of the presence of a

reflex being not in keeping with Guillain-Barre. I think he mentioned the left knee reflex. I don't think I would place that sort of emphasis on it.

Q. Anything else, Doctor, that jumps out at you?

A. Not specifically that I can think of at this point in time.

Q. Anything about reviewing his article that causes you some concern?

A. I think his article is just reflective of what I think is generally accepted as the -- I'm talking about his article in the Merritt's textbook as being reflective of what is generally regarded as a clinical presentation of spinal epidural abscess.

Q. Is there anything from his article that you find supportive of your position --

A. Yes.

Q. -- on causation?

A. Yes. He made mention there of the vascular reflex of an inflammation and the stroking of the -- the ischemia of the cord as being a major factor in causation that I would agree with for that.

Q. One last thing, Doctor, and this is just

out of the blue. I came across something called the Queckenstedt test. Can you tell me what that is?

A. You're getting back to old-time neurology.

Q. Maybe that's why no one mentioned that to me.

A. Well, it's not commonly done much, talked about much now. When you do a spinal tap, you put a manometer in and you measure the pressure, and you can see if there's any continuity of flow by getting the patient to do maneuvers that will get the pressure to rise. Cough, you can pull on the back of his neck; and that will increase the venous pressure, and the spinal fluid pressure will go up. So you have a guy there lying down, and you have the pressure just like on a regular manometer; and you push on the abdomen, and the pressure goes up. If that doesn't happen, that suggests that there's a lack of continuity somewhere along the spinal cord.

Q. It gives you an idea of a block in the subarachnoid space?

A. It's very, very crude.

Q. It's not well accepted today?

A. Well, it's not accepted. It has a lot of

fallacies and is a test that is not very reliable.

MR. BECKER: Pass. Thank you, Doctor.

MR. PFAU: I don't have any questions.

MS. HENRY: I have some.

EXAMINATION

BY MS. HENRY:

Q. Doctor, I represent Dr. Arneman, who's the internal medicine physician involved in this case. Have you been asked to render any opinions about Dr. Arneman's care of Mr. Berry?

A. My attention has been focused on Dr. Singh, and I've not specifically been asked to do that.

Q. Okay. You are aware that Dr. Arneman's area of medical expertise is internal medicine?

A. I know that.

Q. Would it surprise you to find that Dr. Arneman or an internist practicing 28 years in a moderate-size community, Midwestern community with a community hospital has never seen a case of spinal epidural abscess?

A. It would not surprise me.

Q. Would it be fair to say that Guillain-Barre syndrome is a medical condition which

falls more within the expertise of a neurologist than an internal medicine physician?

A. The final --

MR. BECKER: Objection. You can go ahead and answer, Doctor

A. The ultimate diagnosis, yes. But very often these patients will present in an emergency room with an internal medicine person first, because they being the primary care physicians, often the primary care physician will refer that patient to a neurologist.

Q. And it may occur that the internal medicine physician, based on his knowledge in internal medicine, might think it's a Guillain-Barre, but upon referral to the neurologist and review of the case and the patient by the neurologist, he may determine that it is not a Guillain-Barre syndrome?

A. The neurologist, with his added expertise in the area, may be able to offer some additional information which may change the diagnosis. That's an accepted principle in referral medicine.

Q. Would it be appropriate to call in a neurologist if a diagnosis of Guillain-Barre is

considered by an internal medicine physician? It would be appropriate to call in a neurologist?

A. Yes.

Q. Once a neurologist is called in on a case where there is an obvious neurological problem, would it be fair to say that the neurologist assumes the primary care for the neurological aspects of the patient's care?

A. It depends upon the traditions of that hospital. There are times when a neurologist is called in, renders an opinion, and then the treatment is carried out by the primary doctor. He acts as a consultant, not assuming primary responsibility.

Q. But in this particular case, Dr. Singh did not do that; he continued caring for this patient after his initial consultation.

A. I'm not sure what the policy of that particular hospital is, whether he was called in and was required just to render an opinion or he was asked to continue with follow-up care, and that is often on an individual basis.

Q. So you would say it depends on the way the

the physicians relate with each other in the hospital?

A. Yes.

Q. And if the internal medicine physician felt when he called in a neurologist to care for the patient that he was only going to care for his medical conditions and the neurologist would care for the neurological conditions and they were aware of that working relationship, then it would be the neurologist's obligation to care for him neurologically?

MR. WRIGHT: I object. You're being so general.

MS. HENRY: Fine.

MR. WRIGHT: I think that's a little unfair based upon some of the facts we have in this case and involving the actual hands-on care of Dr. Arneman subsequent to the 9th of November. So, I mean, I don't think that's a fair question.

MS. HENRY: Would you read him back the question and see if he can answer it?

(Whereupon, the question was read by the court reporter.)

A. If the policy is such and it was clearly stated that once a patient is referred by an internist to a neurologist that the neurologist should continue with the neurological aspects, if that is what truly has been established, then I think it would be fair to say that the neurologist should continue that. But it varies so much within hospitals and from hospital to hospital that I don't think I can accurately give an opinion about that.

Q. So that the decision, for example, to do the myelogram in this particular case was made by Dr. Singh?

A. Right.

Q. That would be part of the neurological care of this patient?

A. That would be the advice that he rendered to the internist who would then -- I'm not sure how myelograms are done at that hospital. But what would happen, for example, in our practice, would be I would give an opinion, suggest a myelogram be done, and the internist would then refer the patient to radiology who would then take care of the myelogram. It would still be primarily under the care of the

referring internist, unless there was a specific request for transfer to the neurology service.

Q. Do you know who did the myelogram in this case?

A. I don't know who specifically did it.

Q. Did Dr. Singh do the myelogram?

A. I thought he may have from the way the reports were written, but I'm not sure that he did. I don't know.

Q. Would you consider a telephone order by a consultant as to particular care to be followed by the nursing staff during the evening to be an indication that the consultant has already involved himself in the care of the patient as to the neurological-related conditions?

A. Again, what is the hospital policy? What may happen is that the consultant may give a suggestion of an order and it requires co-signing by the internist or whoever else is involved. I don't know how the hospital instructs in that respect.

Q. In this particular case, there's an 11-8-85 telephone order by Dr. Singh which is then signed by Dr. Singh. Would that indicate to you

that he has entered into the care of this patient, based on this --

A. What is that?

Q. It's a nurse, the R.N., telephone order.

A. That would suggest that he has.

Q. That he has entered into the care of the patient neurologically?

A. Yes.

Q. If you were contacted by a nurse at 7 o'clock p.m. indicating marked weakness, some sensory symptoms, depressed reflexes, and that an internal medicine physician had requested you as a neurologist to do a consult and that he thought it was a Guillain-Barre syndrome, do you have an opinion as to whether the physician should have seen the patient immediately based on that information?

A. Again --

Q. The neurologist?

A. Just on that information alone in a stable patient, if the patient is in that situation where he would be well observed, it should be acceptable to see the patient at a later stage.

Q. If this was at 7 o'clock at night, what

time do you feel would be acceptable to see the patient the next morning as a neurologist?

A. As soon as feasible and depending upon what other emergency situation has arisen.

Q. If you received the same phone call saying marked weakness, sensory symptoms, depressed extremities, diagnosis by an internal medicine physician of Guillain-Barre, and request for a consult and that a spinal fluid be performed, would you feel it would be appropriate standard of care to ask specifically the results of the spinal fluid?

A. It would be important to know what is in that spinal fluid.

Q. Would you want to know how many cells there are?

A. Yes.

Q. And why?

A. It would be important to know from the spinal fluid what the potential diagnostic issues are. But, again, I would like -- it would be important to know who gave that information, how it was given. One could be misled by the manner in which information was given.

Q. Would you ask if that result was available? At the time that you were contacted by the nurse, would you specifically ask as to that result? Would it not be within the standard of care to ask specifically what the results were?

A. Well, I think that it would be traditional, certainly in my institution, to have a physician relay that information.

Q. If it was not traditional -- are you saying that an RN is incapable of relaying the information conveyed in a lab result?

A. No. But I think if you are faced with a neurological problem of an ascending paralysis, that the overall clinical picture and impression that you're going to get is -- the accuracy of that picture is going to depend on how well-educated the person providing that information is, and it may be that the information provided by a nonmedical person could have completely different flavor and be misleading.

Q. When you say "nonmedical," you mean nonphysician?

A. Nonphysician person, yes.

Q. If you felt, based on those findings, that there was some reason for concern, would you feel it was appropriate standard of care to contact the physician who had referred?

A. If I felt there was some concern, yes, then I would assure that the physician either contacted me or I was contacted.

Q. If you had Guillain-Barre, what would you expect the cell count to show as to the white blood count? What would be acceptable?

A. We discussed this earlier in the deposition.

Q. Up to 100, did you say?

A. Up to 100, yes.

Q. And I think, perhaps, you did agree that most, if not almost all, the cells should be lymphs if it's a Guillain-Barre?

A. That's correct.

Q. Given the lab findings that are contained in these records, those results given to you at the time that you were contacted, along with the information that there was marked weakness, sensory symptoms, and depressed reflexes, what would you

have done, given all that information at the time of the phone call?

A. If this was my specific case, I would have been a little suspicious of those 37 percent white cells, and I would have liked more information to determine whether there was some reason for the white blood cells to be raised. Does the patient have some kind of other evidence of spinal cord involvement? Was there any kind of generalized illness which could have been operative here to produce the condition such as a meningitis?

Q. If you would have wanted more information, how would you go about obtaining that information?

A. Additional information would have to be given by the physician who was primarily taking care care of that patient.

Q. You would have contacted the physician who was caring for the patient?

A. I would have asked him to contact me.

Q. Would you also have done that by going in to see the patient, given these results?

A. Not necessarily. I would have -- I think it's quite adequate to get good information from a

responsible individual.

Q. Okay. You have given us an opinion that by the time that Dr. Singh saw this patient on the 9th, you felt that the condition was irreversible; is that correct?

A. Yes.

Q. Is there a specific time, based on what you have reviewed in the chart, that you felt that condition became irreversible prior to when Dr. Singh saw him?

A. The condition had reached a very ominous phase when he developed weakness in his legs and difficulty with bladder control. That information, together with the absence of significant cord compression on the myelogram, suggests that he was already developing ischemia of the -- lack of blood flow to the spinal cord. So even on admission to the hospital, there was a situation where he was entering into the irretrievable range. The question is, from that point until he developed total weakness and paralysis, I'm not sure exactly within that time frame when his total paralysis became apparent. If I recall, Dr. Arneman said severe

motor involvement or gross weakness. It's somewhere in the report.

Q. In the consultation.

A. And even -- is that his (indicating)?

Q. Yes. I think there was some movement at 4 a.m.

A. No. He just had --

Q. Foot movement. Okay.

MR. WRIGHT: Very little. I mean, it was -- he couldn't move his legs.

A. Marked motor weakness of both lower limbs. Now, that is a general term. If, at that stage, he had almost total paralysis, then I would have said it was irretrievable at that stage.

Q. At the time that Dr. Arneman would have seen him in the emergency room?

A. Right. He said "marked." Now, that's something you've got -- I'm not sure what that means. It's a very general term. Marked can mean that he's totally paralyzed or he has some movement, minimal movement.

Q. What you're saying is that it's the ischemic pathology here that caused this condition

of the spinal cord?

A. I believe.

Q. As opposed to a collection of the pus and compression, correct?

A. That is correct.

Q. And if there is an ischemic condition developing, what can be done, if anything, to reverse that condition?

A. Once ischemia has set in and been present in the vessels that supply the spinal cord, have blocked off, nothing can be done at that level to improve the blood flow. It's an irreversible situation.

Q. And based on your finding here that there's marked motor weakness of both lower extremities when he came to the emergency room, you feel it was irreversible at that time?

A. Depending on what the definition of "marked" implies. If he was totally paralyzed, at that point, then I would say that he was totally irreversible.

Q. And if he had not been totally paralyzed but had marked -- but had a lot of weakness -- I guess I'm having a hard time with your definition of

"marked."

A. It's not my definition.

Q. Yes.

A. It's his definition.

Q. Okay.

A. We grade strength according to what the functional capabilities of a patient are. As a neurologist, I wouldn't expect an internist to do this. You go from normal strength to what we would call Grade 0, which is no movement; Grade 1 being just a flicker. Grade 5 is normal, Grade 0 is no movement, Grade 1 is a flicker of movement.

Q. If there's a flicker of movement, say it's a Grade 1, when he comes into the emergency room, is it irreversible at that point?

A. I would think, based on what we know about the myelogram, yes, it was.

Q. I'm curious as to what 2, 3, and 4 are here.

A. Okay. Now, 4 is where it's less than normal strength, but he can still move the leg against gravity; in other words, he could do that, but put a little extra, and he would not be able to resist

here (indicating).

Q. He would be able to lift his leg up?

A. A little more. That would be 4. 3 is just where he could lift against gravity and no more; and Grade 2, he could move it, but with gravity removed. In other words, if I put his leg in this position (indicating), he could move it, but he couldn't do that against gravity; and Grade 1 would be -- well, it's just a flicker of movement.

Q. With these gradations you've given me of 1 to 5, Grades 0 and 1, you said, would be irreversible?

A. No, I don't think you could that. I'm just saying -- if he was almost totally paralyzed, I would think that he would have very little chance of recovery and the chance against him would be -- in other words, the horse is bolted and his chances of reversibility are not good at all, or not reasonable, most unlikely within what we regard as a reasonable certainty. I think I'm misleading you by mentioning these gradings. All I'm trying to say is that if he had some movement, could maybe walk or support gravity, that would indicate some residual function,

at which point, intervention probably would have -- may have, may have, if this was being helpful -- but once it progresses beyond that stage --

MR. BECKER: Which stage?

A. -- where he's unable to move except for a minimal amount of movement, then I think you're dealing with a very severe situation. There's been major involvement of the spinal cord.

We know there was no pressure. Had that pressure been present, I would not be saying this. We know there was no pressure, or we assume there was no pressure because the myelogram done in Cleveland failed to show a significant amount of cord distortion. Under those particular circumstances, the likelihood is that there was a progressive ischemic myelopathy, which it had reached an advanced degree to the point where, logically, there was little likelihood of return of function.

Q. But you said if he was able to walk or support gravity --

A. That would have been --

MR. WRIGHT: He didn't say that.

Wait a minute. I'm not sure what your question is.

MS. HENRY: Well, I didn't get to finish it.

Q. Why don't you explain again. You said that intervention may have had some kind of an outcome if, you said, when he came into the emergency room he was able to walk? Did I misunderstand you?

A. Yes.

MR. WRIGHT: Well, now, hold it, because the emergency room record and Mr. Berry's testimony indicates that he was unable to -- that they had to take him in a wheelchair to the examining table. He wasn't able to walk after he came into the emergency room.

MS. HENRY: That's okay. I'm not saying necessarily that this is -- I want to get this clear as to what kind of movement he feels -- in case there's any dispute at all in here -- what kind of movement he feels may have resulted in recovery if there had been some intervention.

MR. WRIGHT: You might ask what clinical signs he would expect to see in order to

have any chance whatsoever of reversibility, something like that.

BY MS. HENRY:

Q. Okay. Why don't you answer his question, then? Assume it's mine.

A. The severity of the involvement will determine the likelihood of this being permanent. The more severe, the more obvious the neurological deficit; in this particular setting, the less likely the outcome to be favorable. Now, if this was a patient of mine, I would feel very concerned about his prognosis if he'd come in with this story: examined him; he had very little motor function; maybe some movement, but certainly not enough to support gravity; and we went ahead and did the myelogram and felt no cord compression. I would have been very concerned about his ultimate prognosis, and I would have just -- at least certainly would have found him to be rather gloomy in what I expect his prognosis to be.

Q. But as to clinical symptoms to the motor involvement or the neurological involvement, what would you expect to find if you then felt that it

might be reversible?

A. I would have expected him to be able to move his legs fairly freely in bed without resistance. I would have hoped to see him able to maybe lift his leg up against gravity and offer some resistance to my added pressure.

Q. Would you expect he would also be able to walk?

A. Not necessarily. But that would be nice to see him walking in, remaining without any loss of walking function.

Q. But if you made these findings that he could move his legs freely in bed without resistance, he could lift his legs against gravity, and would offer resistance to added pressure by you, are we talking about, to a reasonable degree of medical probability, he would have been able to have a complete recovery?

A. Again, now, you have to -- it depends on when and how soon surgery could be effected, because what we're dealing with in this situation is a progressive occlusion of vessels; and that, as is apparent from this man's course, happened rather

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rapidly; and again, he may have made a diagnosis -- it takes time to set up an operating room, time to do the myelogram. At that point in time, all may be lost, even with an adequate and effective diagnostic regimen.

Q. Given those clinical symptoms that we just discussed about the neurological movement, it would have been mandatory to do a myelogram initially --

A. Yes.

Q. -- before doing any further surgical intervention?

A. In a hypothetical situation, if you knew that this man had an epidural situation, an epidural abscess, and your clinical features as portrayed were consistent with this diagnosis, it would have been important to do the myelogram as soon as possible. As I say, mandatory.

Q. And then the surgery after that?

A. Immediately, yes.

Q. You would have to do the myelogram first and then the surgery?

A. Unquestionably, yes.

Q. Because you would not know at what

location to do the surgery unless you did the myelogram?

A. That is correct.

Q. And you have said that it may even be too late by the time you did the myelogram and then the surgery?

A. If the course was such that he progressed to total paralysis from even a flicker of movement while you were waiting for the operating room and whatever else was needed for the surgery to be put into effect, yes.

Q. Okay. So by the time he hits the total paralysis --

A. Now, we're talking -- again, I want you to understand, we're talking about an ischemic situation. I'm not talking about pressure, which is a totally different entity which allows you a little more time and where reversibility is more likely to to occur even after there's been major compression.

Q. If you felt it was pressure as opposed to the ischemic situation, if surgery had been performed on the 9th or the 10th, given that hypothetical, would it have been a reversible

situation?

A. More likely than if it had been ischemic.

Q. And would it also be reversible, if it was a cord compression and there was total paralysis, would it be reversible even after that if you had done the surgery?

A. If it was total paralysis, loss of bladder function, even with cord compression, the outlook is very poor.

Q. So what you're saying, then, is that by the time Dr. Singh saw him, regardless of whether it was compression or ischemia, the chances of any kind of reversal are minimal?

A. Yes.

Q. Then you disagree with the opinion rendered by some of the other experts in this case that if there had been surgery on the 9th or the 10th, that recovery, complete recovery would have been possible?

MR. WRIGHT: You don't have to answer that question. You don't have to agree or disagree with some other expert's opinion. It's not appropriate to ask that kind of a question. You

can't pit one of these people against another.

MS. HENRY: You can't instruct him not to answer.

MR. WRIGHT: I already have done that.

MS. HENRY: Since he's not technically your client, you can't instruct him not to answer.

MR. WRIGHT: I'm just telling him that it's not appropriate. We've been here for long enough now.

BY MS. HENRY:

Q. Is there support in the literature for your position that once there is total paralysis it is irreversible?

A. Put it this way, it's a very well accepted dictum or dogma, as I've talked about before; and I'm sure we would find something. But it's so well known that we discuss it at rounds under clinical circumstances.

Q. Did you read Dr. Arneman or Dr. Singh's depositions?

A. No.

Q. There has been some discussion about this

draining -- see if I can find it here -- that there was a draining abscess on the abdomen which you felt the internist, had he seen, it should have been brought to the attention of the neurologist. If it had been seen, based on what you know in this case, what, if any, significance would that have in this particular case?

MR. WRIGHT: I object to the question, because there is no evidence, at least at the time the patient was in the Osteopathic Hospital, of such a condition. I see that there was evidence of some stab wound being present in the abdomen in the Cleveland Clinic record. But I don't know what that means, and I don't know whether it was there when he was at the Osteopathic Hospital or not. It said "stab wound" is what it says. It says "lesion," and then the next one, "from a stab wound on the abdomen," on the next page.

(Discussion off the record.)

Q. If you assume that he did have a lesion on his abdomen that had been draining for, as the Cleveland Clinic records say, some time at the time that he was in the Youngstown Osteopathic Hospital,

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if you assume that finding in addition to everything else you had in the chart, what significance, if any, did that have as to the diagnosis as to spinal epidural abscess or Guillain-Barre?

MR. WRIGHT: I object unless you say that it was present when he came in the emergency room and when Dr. Singh saw him. I think you have to assume that.

MS. HENRY: I thought I said that. I thought I had made that clear.

Q. Assuming that it was present at the time that he was there.

A. Assuming that draining, whatever it was, on the abdomen had been present for some time and was there when Dr. Singh and Dr. Arneman had seen him, you're assuming -- that's the assumption; is that correct?

Q. Yes. Assume that that was there when he was seen by Dr. Arneman and Dr. Singh, given the other information that you have in this chart, what does the addition of that have as far as any significance in the diagnosis of this case?

A. Well, it can work in favor of the

diagnosis of an epidural abscess in the sense it's providing a potential portal of entry for the infection, and that may be a source of subsequent hematogenous spread to the spine.

It could work the other way. Guillain-Barre may follow some kind of antecedent infection. He may have had some kind of tick. There's something called tick paralysis where the tick may strike the abdomen, bite the abdomen, and that can cause paralysis. That doesn't present in exactly this way, but certainly those are considerations. But it would alert one to the possibility that there may be a causal relationship.

Q. Could it also have no significance at all in this --

A. Probably. That is the more likely, because how often do we see -- very frequently do we see cutaneous lesions that have no implications in terms of the neurological presence. In terms of probabilities, a cutaneous lesion is not likely to have much in the way of significance.

Q. Could it, given the fact that he had high blood sugar, it simply been some kind of lesion that

didn't heal because he was diabetic?

A. That is a possibility.

Q. Dr. Miller's -- you talked about a chapter in a book?

A. Yes.

Q. Which book is that?

A. It's Merritt's textbook. It's edited by a guy named Bud Rowland.

Q. And that is what you were referring to when you responded to Mr. Becker about his article?

A. Yes.

Q. That's that particular text?

A. Yes.

MS. HENRY: I don't think I have anything further. Thank you.

EXAMINATION

BY MR. BECKER:

Q. Doctor, do you think if a myelogram would have been performed on the 8th, it would have been diagnostic?

A. The 8th was the Friday night of admission?

Q. Yes, sir.

A. Now, specifically what kind of myelogram?

They did two kinds. If they did an Amipaque myelogram, I think it may not have been diagnostic. I doubt it would have been diagnostic, based on what I see of the subsequent myelogram.

Q. What about a myelogram on the 9th, would it have been diagnostic?

A. It's difficult to answer that, because I'm not sure what the evolution of the syndrome in terms of the development of pus was. I believe that most of the early symptoms and signs related to the local inflammatory reaction with the thrombophlebitis, and under those circumstances, with early inflammation, you may not see anything on the myelogram.

Q. In terms of probability, Doctor, would you agree with me that it's more probable than not that had a myelogram been performed on the evening of the 8th it would have demonstrated something similar to that which was demonstrated on the, I believe, the 11th or 12th?

A. Not necessarily.

Q. I'm not asking you necessarily. I'm asking --

A. I think the probability is that on the

evening of the 8th, a myelogram would not have been diagnostic.

Q. And the basis for that opinion?

A. That I think the evolution of his syndrome was largely one of a vascular one.

Q. And that's the basis?

A. Yes.

Q. Because you're hanging your hat on the vascular analysis from the Cleveland Clinic myelogram, correct?

A. Yes.

Q. But you would acknowledge that there's no support for this vascular theory from the myelogram done at Youngstown Osteophatic, correct?

A. The myelogram is not able -- you cannot diagnose a vasculitis on myelogram. You can only infer it on the basis of absence of compression on the spinal cord.

Q. Right.

A. That's what I'm saying.

Q. But on the 11th or 12th when the first myelogram was performed, that did demonstrate a block consistent with compression, correct?

A. No. It demonstrated a block indicating that the contrast agent was not flowing past an obstruction, and that does not indicate compression.

Q. Does --

A. It's a physical inability of the contrast agent to move past a point. That is not necessarily diagnostic of compression.

Q. What, in terms of probability, is it diagnostic of?

A. It could just mean there was some inflammation with beginning of adhesions formed there, and the inflammatory reaction that goes along with this may have produced an obstruction to the passage of the fluid. A block is not synonymous with compression.

Q. But is it consistent with compression?

A. It is consistent.

Q. Doctor, you used the term "ischemia" in a way that I'm not familiar with, and I'm familiar somewhat with vascular surgery. My understanding of ischemia, the term means reduced vascular supply; not complete blockage, but reduced vascular supply. Is that correct?

A. No. It indicates there's lack of blood flow to that particular organ.

Q. Total absence of blood flow?

A. Yes.

Q. Assuming as true that there was a compression component as a result of his symptoms on the 8th -- okay? I understand that you have an opinion that it's a vascular, predominantly vascular component. But assume that it's true that a compression was one component of it, can you state in terms of probability that had surgery been done on the 8th it was a reversible scenario, assuming that to be true?

MS. HENRY: Objection.

MR. WRIGHT: You're assuming that there was also ischemia present? In other words, you're assuming that in your question?

Q. Assuming there was a component of ischemia as well as compression on the 8th, assuming we don't have total paralysis on the evening of the 8th -- assume that to be true, Doctor -- would you acknowledge that it was a reversible scenario on the 8th?

A. Whatever was related to the compression could have potentially been improved by decompression.

Q. The answer to my question would be yes?

A. Yes.

MR. BECKER: Thank you. I have nothing further.

(Signature not waived.)

(Whereupon, the deposition was concluded at 6:30 p.m., this day.)

JAMES BERRY, et al.)
)
) No. 87 CV 726
vs.)
)
)
DR. R. KALAPOS, et al.)

CERTIFICATE

I, BENJAMIN HILLEL EIDELMAN, M.D., do hereby certify that I have read the foregoing transcript of my deposition consisting of Pages 3 through 110, and it is a true and correct copy of my testimony, except for the changes, if any, made by me on the attached Deposition Correction Sheet.

_____
BENJAMIN H. EIDELMAN, M.D.

_____
(Date)

Notary Public

_____
(Date)

COMMONWEALTH OF PENNSYLVANIA,)
COUNTY OF ALLEGHENY) SS:

I, Cathyann Simmons, a notary public in and for the Commonwealth of Pennsylvania, do hereby certify that the witness, BENJAMIN HILLEL EIDELMAN, M.D., was by me first duly sworn to testify the truth, the whole truth, and nothing but the truth; that the foregoing deposition was taken at the time and place stated herein; and that the said deposition was recorded stenographically by me and then reduced to typewriting under my direction, and constitutes a true record of the testimony given by said witness, all to the best of my skill and ability.

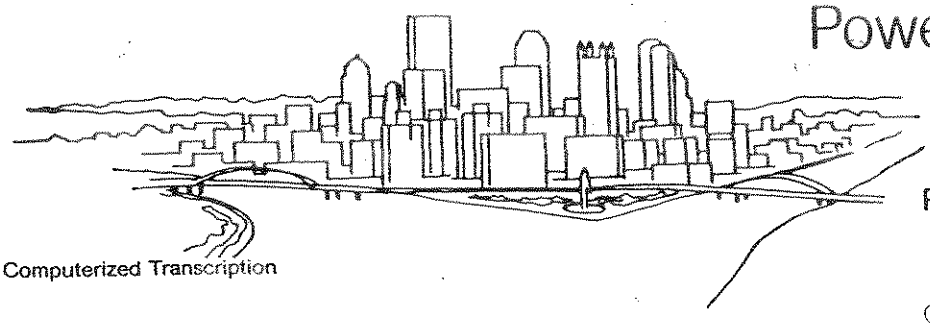
I further certify that the inspection, reading and signing of said deposition were not waived by counsel for the respective parties and by the witness.

I further certify that I am not a relative, employee or attorney of any of the parties, or a relative or employee of either counsel, and that I am in no way interested directly or indirectly in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office this 2nd day of October, 1989.

Cathyann Simmons

NOTARIAL SEAL
CATHYANN SIMMONS, NOTARY PUBLIC
Member, Pennsylvania Association of Notaries



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October 2, 1989

Benjamin H. Eidelman, M.D.
Room 328, Scaife Hall
Department of Neurology
University of Pittsburgh
Pittsburgh, PA 15261

Re: James Berry
Vs: Kalapos, M.D.
No:

Dear Dr. Eidelman:

Enclosed herewith is a copy of the transcript of your deposition taken in the above-captioned case. Pursuant to the Rules of Civil Procedure, you have a right to inspect, sign, and correct this deposition. If you wish to make any corrections, please enter them on the enclosed "Deposition Correction Sheet," together with the reason for the correction. Then sign and date the witness' certificate page also enclosed. Then return these sheets to me. I will notify all counsel of any corrections.

You are required to sign the deposition within 30 days of submission of the transcript to you. If it has not been signed within 30 days, I am directed to sign it and state the reason for its not being signed, and the deposition may then be used fully as though signed, unless the court holds that the reasons for not signing require rejection of the deposition in whole or in part.

Should you have any questions, I can be contacted at the above phone number or address.

Very sincerely yours,
POWERS & GARRISON
Cathyann Simmons
Cathyann Simmons
Court Reporter

Enc.

cc: All counsel