THE STATE of OHIO :
: SS:
COUNTY of CUYAHOGA. :

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IN THE COURT OF COMMON PLEAS

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TIMOTHY J. BUTTI, administrator of the Estate of Megan Elizabeth (Jones) Butti, deceased, et al., plaintiffs,	:	
vs.	:	Case No. 237214
METROHEALTH MEDICAL CENTER, et al., defendants.	:	

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Telephonic deposition of JAN LEESTMA, M.D., a witness herein, called by the defendants for the purpose of cross-examination pursuant to the Ohio Rules of Civil Procedure, taken before Constance Campbell, a Notary Public within and for the State of Ohio, at the offices of Michael Becker, Esq., 600 Standard Building, Cleveland, Ohio on Friday, the 18th day of March, 1994, commencing at 2:50 p.m. pursuant to agreement of counsel.

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I N D E X

WITNESS: JAN LEESTMA, M.D.

(NO EXHIBITS MARKED)

(FOR KEYWORD AND OBJECTION INDEX SEE APPENDIX)

MR. WALTERS: Doctor, my name is Steve Walters, I represent the defendants in this case.

Let the record show this is the discovery deposition deposition taken telephonically of the witness, Jan Leestma, M.D., identified by the plaintiffs as an expert in this case.

I gather that the taking of it, all notice is dispensed of, at a time agreeable to the Doctor, he's on the other line?

MR. BECKER: No problem.

JAN LEESTMA, M.D.

of lawful age, a witness herein, called by the defendants for the purpose of cross-examination pursuant to the Ohio Rules of Civil Procedure, being first duly sworn, as hereinafter certified, was examined and testified as follows:

MR. WALTERS: I guess we can all agree the administration of the oath by the reporter here in Cleveland is agreeable?

MR. BECKER: So agreed.

MR. WALTERS: Doctor, I'm going to be asking you some questions about what

you believe to be the facts, at least in terms of as they are relevant to your area of review in this case. I'm also going to be asking you what you're opinions are. If I ask you a question you do not hear or do not understand, tell me immediately, I will attempt to make myself clear; is that agreed?

THE WITNESS: Sure.

MR. WALTERS: If you give an answer, we will assume you heard the question and understood the question; is that agreed?

THE WITNESS: That's correct.

CROSS-EXAMINATION

BY MR. WALTERS:

Q. State your full name, please.

A. Jan, J-a-n, Edward Leestma, L-e-e-s-t-m-a.

Q. What is your office address?

A. 428 West Deming Place, D-e-m-i-n-g, Chicago 40414.

Q. You are a physician with an area of focus or specialty in neuropathology; is that correct?

A. That's correct.

Q. Are you associated with any teaching institution?

A. I am not at present. I have held acedemic rank before at the professorial level at the University of Chicago.
Q. When was that?
A. About six years ago or so. That ended in 1987.
Q. Why did it end?
A. I left that institution to take up my present position as the Associate Medical Director of Neuropathology for the Chicago Institute of Neurosurgery and Neuroresearch.
Q. That's presently where you are?
A. Yes.
Q. You are Associate Medical Director?
A. Yes.
Q. In that capacity do you treat patients?
A. I'm not a treating physician, I'm a neuropathologist.
Q. I am sorry, putting it another way: In that position do you review and render opinions on pathologic samples or specimens for patients at the Chicago Institute of Neurosurgery and Neuroresearch?
A. I do.
Q. Have you ever testified before, Doctor?

A. Yes, I have.
Q. In the last five years how many depositions have you given in medical/legal matters?
A. I can't be sure. It would exceed 100, I'm sure.
Q. Are those in cases in which someone is suing a doctor or hospital?
A. It would include that, although I do a fair bit of criminal work as well.
Q. How many in the what I'll call the medical negligence field in the last five years?
A. I don't know, 30 or 40, 50, half the cases at least would fall into that category.
Q. Have you ever testified in court in a medical negligence case?
A. Yes, I have.
Q. How many times in the last five years?
A. Probably 25 times maybe.
Q. In the cases in which you testified 30 to 50 times on deposition in the past five years, have they been predominantly on behalf of the plaintiffs, predominantly on behalf of defendants or what is the mix?
A. It is about 50/50 on each side. I make no effort to espouse one position or another. Some

years it's more one, some another. It works down to about 50/50.

Q. When were you first contacted in this case, asked to review the case?

A. I'll have to try to refer to the correspondence here, see if I can come up with that. My best recollection is it would have been in the Summer, perhaps of '93, I can't recall exactly.

Q. Who contacted you?

A. I'm not sure. I think a Mr. Pieper did.

Q. Pieper?

A. Then we had contact with Mr. Becker.

Q. Have you ever reviewed any cases for Mr. Becker before this?

A. I don't recall doing so, no.

Q. Have you reviewed any cases for Mr. Pieper before this?

A. I don't believe so. I have a correspondence from Mr. Pieper here July 23, 1992, I'm sure we had a conversation before that, that is when he sent me some material.

Q. Summer of '92?

A. I gather so. I correct my previous statement. Pieper had a contact with me in the

Summer of 1992.

Q. I have a report of November 19, 1993, addressed to Michael Becker in this case.

A. From me you mean?

Q. From you.

A. Yes.

Q. Have you written any other reports or correspondence in this case to Mr. Becker or Mr. Pieper?

A. Correspondence by fax on other things related to the receipt of materials.

Q. I'm focusing on correspondence by fax or otherwise flowing from you to Mr. Becker or Mr. Pieper?

A. Certainly I have had a great deal of correspondence between them.

Q. Can you look at the file in front of you, give me the dates of letters that you've sent to Mr. Becker or to Mr. Pieper?

A. I haven't organized this chronologically.

Q. Do the best you can.

A. I'll do what I can. This would have been in the last week relating to the materials which may or may not be used at trial. This was a fax, for some reason I don't have the date on the top of

it.

MR. BECKER: Doctor --

Q. I think you misunderstood, Doctor. I'm not interested in the moment in the correspondence from Mr. Becker or Mr. Pieper to you but from you to either of them.

A. That's how I'm answering.

MR. BECKER: I would like you to give a date, not disclose the contents or what the subject matter was. There have been plenty of conversations from you to us over the last year.

Q. What is the date of that piece of correspondence?

A. For some reason I don't have a date. This past week. The next one that I come up to --

Q. To whom was that sent, to Mr. Becker?

A. Yes.

Q. How many pages?

A. One. I have correspondence here on June 14, 1993 to Mr. Becker.

Q. How many pages?

A. One.

Q. Anything else?

A. We're going through it. I'm trying to find

the report that I sent. Here we go. I have November 19, 1993, that is a two page letter which is my report to Mr. Becker.

Q. Anything else?

A. That is all I seem to lay my hands on here.

Q. In the letters to Mr. Becker of June 14, 1993, and the undated one, apparently that was sent by fax, that was sent last week to Mr. Becker by you, do you render any opinions or note any findings in them?

A. The only one that would fall into that category would be the report letter of November 19, 1993.

Q. Are the others strictly transmittals or requests for additional materials, that sort of thing?

A. That is a fair description, yes.

Q. Prior to writing your report of November 19, '93, what materials did you have to review, or putting it another way what materials did you review?

A. That I'll have to refer to here. I have the hospital records of the birth, I have the autopsy and neuropathology reports, I had the microscopic slides, photographs of autopsy specimens, that's

the -- I have a little x-ray film here, one x-ray film.

Q. What is depicted in the x-ray film?

A. A film of the chest, dated 10 July 1992, it shows a position of some catheter and things, it's not helpful to me.

Q. It didn't play any role in your opinions?

A. No, not at all.

Q. The slides, do you know how many you had?

A. I didn't count them. These were slides of placenta, general autopsy and the brain. There are many duplicates there so I didn't bother to count them. Let's see if I can make an estimate for you. I made xerox images of 44 slides.

Q. Have we now covered all the materials you had in your possession before preparing your report of November 19, 1993?

A. Yes, to the best of my recollection.

Q. With regard to the period of time after preparing that report, up to the very present as we take this deposition, have you received and reviewed any additional materials?

A. Yes, I have.

Q. Tell me what those are.

A. I have an accounting of them here. I have a

discovery deposition of Janet Kaiser, Janet Reinhold, Wayne Burrows, Leroy Dierker, D-i-e-r-k-e-r, John Moore, M-o-o-r-e, Zahid Shaw. I think I have the deposition, I may have summaries of Dr. Sawadi, S-a-w-a-d-i, Elizabeth Wise, Manuel Campo, Josephine Ashmead. I also have a copy of a report by Dr. Gilles, a report by Frank Boehm, B-o-e-h-m, report of Janet Strife, S-t-r-i-f-e, report of Jay Goldsmith, and a report by Richard Naeye, N-a-e-y-e.

Q. What is the date on the Naeye report?

A. April 19, 1992.

Q. The date on the Strife report?

A. November 2, 1993.

Q. The date on the Goldsmith report?

A. October 18, 1993.

Q. The Boehm report?

A. July 6, 1993.

Q. The Gilles report?

A. December 14, 1993.

Q. Does that complete the listing of additional materials you've received since preparing your report?

A. I think that does it.

Q. Do you have more than one report from

Dr. Goldsmith?
A. I don't think so. This is the only one I'm aware of.
Q. Did the material in any of the deposition transcripts, other than perhaps Dr. Sawadi and Dr. Ashmead, impact upon your opinions in this case?
A. They simply add to what was basically in the autopsy report. Clinical narratives that were in the chart. They simply amplify what was there regarding the circumstances of the delivery of the child. I wouldn't say they have added anything in particular to what I had at the beginning. Just simply magnified it a little bit I guess.
Q. Do you presently hold any opinions in this case different from or in addition to those set forth in your report November 19, 1993?
A. No.
Q. Doctor, I didn't ask you, have you ever testified in a case pending in the Cleveland area?
A. Yes.
Q. When was that?
A. I had occasion about 10 years ago to testify in a criminal matter in court in Cleveland.
Q. How about a medical negligence case?

A. I haven't testified, I had some deposition, many of these cases have been dealt with in one way or the other, I didn't have a final testimony.
Q. I'm including in deposition, do you remember in the last five years a deposition in any medical negligence case in Cleveland?
A. Yes.
Q. What is the most recent you recall?
A. The most recent one was with Attorney Bill Greene, G-r-e-e-n-e, on the matter entitled Maros, M-a-r-o-s, medical negligence claim against Case Western Reserve Medical Center.
Q. Did that involve the death of a neonate?
A. No.
Q. Did it involve a death?
A. Yes.
Q. You testified in that case on behalf of the defense or the plaintiffs?
A. On behalf of the plaintiffs.
Q. Can you remember any other occasions in which you testified in deposition in a case pending in the Cleveland area?
A. I think that is it. I have another case pending from Mr. Greene that hasn't -- I think it's in such a preliminary way it may not be disclosed.

Q. Does it involve -- that other case for Attorney Greene -- does that involve the death of an infant?
A. I don't think so, no.
Q. Did you, Dr. Leestma, make any conclusion set forth in your report of November 19, 1993 as to the precipitating cause of death for Megan Butti?
A. Yes, I did.
Q. Whereabouts is that on your report?
A. It would be on the second page of the report, near the top. Where I'm describing that the child suffered a hypoxic/ischemic insult at the time of delivery, that mechanical trauma to the neck and brain stem area as well as the hypoxic/ischemic injury led to the child's death. Some other references to that as I go on through. Then the summary of course at the bottom of the page I think I said essentially the same thing.
Q. Doctor, at the time the delivery of this infant was complete, the infant was handed over to the pediatric staff, what was the probability of survival for this infant?
A. I would say at that point it appeared to me to be very, very guarded indeed. The child was in very perilous circumstances. I couldn't decide on

a percentage of probability of or possibility that the child would survive. This would be a very worrisome set of circumstances.

Q. Do you have an opinion as to whether or not at the time that the delivery was complete, the child was handed over to the pediatric staff, that it was more likely than not that this child was going to die?

A. In my opinion, yes, that is probably true.

Q. Doctor, did you find in your review of the materials sent to you, specifically now I'm focusing on the slides that you looked at -- that is the only microscopic evidence you looked at?

A. Yes, the autopsy slides and those of the placenta.

Q. In your review of the slides and specifically those of the brain, did you observe any red neurons?

A. I think we need to define what you mean by that.

Q. Does it have any meaning to you?

A. Well, yes. This term I think has to be defined because I could be speaking of one thing, you could be speaking or somebody else could be speaking of something else. Let me make a

definition of that.

Q. I want you to give me your definition.

A. Red neurons are the name or is the name that is generally applied to irreversible damage of nerve cells in the brain that have gotten that way because of hypoxia, ischemia or some toxic process.

In general, when one sees red neurons, one sees lots of them in various patterns, which is reflective of the vulnerability of nerve cells so effected. A classic red neuron is one that is somewhat shrunken, its nucleus is indistinct and dark purple. The cytoplasm of the nerve cells is brick red or some variant of that. Essentially there are no features within this dead or dying nerve cell at that point.

It's a question of histological appearance as well as distribution. One could use that term to describe a single cell outside of that context. The context I would say involving a statement that the brain had red neurons in it would be within the context I just described, a lot of them in certain distribution with that characterization.

Q. Do you understand, Doctor, you are telling me

that your definition of red neurons depends upon how many of them there are, is that what you are telling me?

A. That could be one way of talking about it. When I'm communicating something to the effect a given brain was full of red neurons, I'm describing I didn't have to look for them. That the process was well evolved, to some degree had a quantitative aspect to it.

Q. A red neuron is also termed in the more correct term, I may mispronounce this, eosinophilic?

A. Yes. The fact that the cell as it's injured, when stained with eosin, takes up the stain and renders it red.

Q. In your review of the slides of the brain of this infant, did you find any eosinophilic neurons or red neurons?

A. Let me answer that question in the way that I found a scattering of nerve cells that showed degenerative changes that given time would more than likely appear as so-called red neurons.

In terms of the number of well developed ones that would fall into that prior categorization, I didn't see that. I had to look

for these things. If you want to say there was a few "red neurons" as an individual phenomenon you could probably use those terms.

What we're seeing is -- what I saw were occasional cells that had slightly red staining, not fully developed. I would characterize them as being either very acute or hyper acute forms of injury in nerve cells, which with time they would probably become red neurons. I did see changes that would probably ultimately culminate in that.

Q. Doctor, isn't it a fact you did see some neurons in viewing the brain tissue of Megan Butti that can fairly be classified as red neurons?

A. Well, I would say within the description that I just made, I think they are becoming red neurons. I don't known if it becomes a schematic nature, I saw cells with hypoxic/ischemic damage in the early stages, had a redness about them, were not fully developed, would not be characterized fully developed red neurons.

Q. Eosinophilic or red neurons are described and defined in texts of neuropathology, are they not?

A. Sure. Yes, many textbooks, of course.

Q. What textbooks come to mind that have

definitions of red neurons and descriptions of them?

A. Just about every current work in neuropathology of a general -- Nowell, Greenfield Neuropathology would showed pictures of this. Davis and Robertson, Textbook of Neuropathology would show them.

Q. By the definition in those textbooks you saw some neurons in the brain tissue of Megan Butti that met the criteria of those definitions, did you not?

A. I saw neurons which were damaged and I would say given time they would show the classic red appearance. They were beginning to show those things. Within the context of neuronal injury of course I saw them. Those things would be described in textbooks too. Sometimes red neurons, sometimes other terms.

Q. If I understand, Doctor, typically a healthy neuron will have an elongated shape with a clearly defined nucleus and indeed nucleosis within it?

A. Yes. Other characteristics, looks like a pyramid, generally the cytoplasm has sometimes a bluish strip. There is material in there, salt and peppery, you can see.

Q. As far as the shape, for example, of an eosinophilic neuron, describe that for me?
A. Just repeat the last, I lost the last couple of syllables.
Q. Would you describe for me the shape and characteristics of a typical eosinophilic neuron?
A. Sure. The nerve cell would, depending on what phase you caught the injury in, more than likely would be not swollen, shrunken. Instead of seeing the stripped bluish appearance of the cytoplasm it would have a reddish, brick red appearance to it. The nucleus might not be the robust or round structure, somewhat compressed and irregular. It would be losing or have lost any definition, would be sort of blotted out or smeared out, have a purplish or darker appearance than the normal.
Q. Would the shape tend to be more of a, how shall I put it, a ball shape rather than a more elongated shape of a healthy neuron?
A. It depends which phase you have. Initially probably as a cell is injured it swells for a short period of time, collapses on itself. Generally I would say it wouldn't have a rounded shape, more than likely to have collapsed, still a triangular

shape, withered looking.

Q. Doctor, in point of fact, in your report of November 19, 1993, you found many areas of the brain of this infant which displayed evidence of hypoxic/ischemic injury to the neurons?

A. Yes.

Q. What is the significance of that?

A. Well, what I'm referring to are cells which are either swollen or have some staining characteristics which separate them from normal. I found these scattered, one here, one there, two here, two there in the cerebral cortex, basal ganglia, various parts of the brain stem.

There were diffuse changes, they weren't everywhere, and certainly in any one microscopic field you might not see one of these damaged nerve cells at all, look for them a little bit.

Q. You found more of these ischemic/hypoxic changes in one inferior olivary nucleus in the medulla, as compared to the other side; is that correct?

A. I mentioned this. This is in just one section. There were probably four copies of that slide. I had recent occasion, in fact yesterday,

to examine those slides again. Attempted to find that area I was concerned about, had difficulty doing so. That doesn't mean I didn't see it. It must have been rather subtle.

Q. Did that re-examination yesterday come about because you were advised that Dr. Floyd Gilles disagrees with that finding of yours?

A. No, that wasn't the reason. I wanted to see them in preparation for the deposition today. I also had received the slides so that I might look at anything there, make photographs of it so that if it became necessary we could utilize those things at trial. I just used the opportunity to reacquaint myself after some months away from these slides.

Q. Are you aware that Dr. Gilles disagrees with that finding that appears in the forth paragraph of your first --

A. I don't think that he expressed point by point disagreement. I know he was not as impressed with some things as I was.

Q. Have you spoken with him?

A. No, I haven't.

Q. Those neurons in which there is evidence of hypoxic/ischemic injury you note in your note of

November 19th --

A. Yes.

Q. -- those include red neurons, do they not?

A. Yes, if you want to see hypoxic/ischemic red neurons that would be at a completed phase.

Q. How does hypoxic/ischemic injury to the neurons occur?

A. Well, nerve cells anywhere, brain or elsewhere, have very low amounts of stored carbohydrates in the form of sugar or glycogen. They have to be basically constantly supplied with that to survive. By the same token, they require a constant and uninterrupted supply of oxygen. Oxygen and glucose or some form of carbohydrate have to be there literally second by second. If for some reason one or both of those components are missing or withheld from the nerve cell, it will survive for a period of time, then beyond that it may be as little as 10 or 20 seconds, will suffer some injury from that.

That injury may be temporary and repairable or permanent. When it becomes permanent or will ultimately become permanent you enter the domain of a cell undergoing a series of changes which culminate in the red neuron and end with its

dissolution.
Q. As far as the source of such hypoxic/ischemic insult to the brain, that can be, I gather, from a number of different sources?
A. Sure. Not otherwise specified, right.
Q. Could be compression of umbilical cord?
A. Could result from that, yes.
Q. Could result from some problem with the placenta?
A. Yes, if it were severe enough.
Q. Can it result from some chemical problem during the time the infant is in utero?
A. Did you say chemical?
Q. Some change in the body chemistry of the mother that is transmitted to the child?
A. I suppose that is possible. That becomes increasingly more difficult and a little less critical of what is going on in the maternal circulation. Clearly if the mother had a cardiac arrest or some serious impairment of respiration or circulation to slow down the stream it can bring about a hypoxic/ischemic change in the baby.
Q. Dr. Leestma, before seeing these changes of hypoxic/ischemic injury to the neurons, as you indicate in your report, how much time must elapse

between the hypoxic/ischemic injury and its reflection and changes in the neurons?

A. In general, here we have to rely upon individual observations, single cases, so forth and so on to get the opening drama, if you will, when does the curtain first go up.

I think it's probably that one could see the earliest possible changes with about an hour's interval, maybe a little less. I think there are certain experimental circumstances in which nerve cells deprived of nutrients you can hold the preparation in kind of limbo, one can pick up changes in about half an hour, 45 minutes or an hour.

In the clinical state, generally a couple of hours are required. In special circumstances, for example hanging or anesthetic accident where you know the exact time frame, then the individual survives a few hours or something like that, then you examine the brain, you may see a population of early or maybe coming, developing red neurons developing.

In general though, the wisdom is it takes 8 to 12 hours, sometime longer of a survival period to produce easily visible and classic

patterns of red neurons.

Q. If, Dr. Leestma, the brain tissue of this infant, Megan Butti, displayed the presence of red neurons, does that not indicate that there was a hypoxic/ischemic injury to the brain of that infant several hours prior to her demise?

A. Not necessarily. This would be dependent upon the location, numbers, and how well developed the changes were.

Q. As you know from testifying many times in medical/legal matters, we don't look for absolute certainty, we certainly don't look for certainty in the medical field.

My question to you is: If the brain tissue of Megan Butti displayed red neurons, does that not most probably indicate that she suffered hypoxic/ischemic injury to her brain several hours before her demise?

MR. BECKER: Let me enter an objection Doctor, there has been going back and forth between general and specific, whether we're talking about Megan or not, whether you're talking early development of red neurons, classic. I think --

MR. WALTERS: No need for a

speaking objection. Show my objection to that.

MR. BECKER: You've got your objection to my notation. I'm not done yet. Doctor, I think the question is --

MR. WALTERS: Don't restate my question. I object to this.

MR. BECKER: Doctor, do you understand the question?

THE WITNESS: Yes, I understand the question.

MR. WALTERS: He seems surprised that you are saying so much.

Go ahead, answer the question, Doctor.

A. Again, I need more information. Again, this borders on what we saw versus a hypothetical. I would say that the presence of an occasional altered red neuron or occasional so-called red neuron, in a very diffuse, nonprominent manner, would not necessarily imply several hours of duration.

As I indicated, one might see this within a period of half an hour, 45 minutes or a hour in some cases, looking at the very inception of the process.

If you said we saw classic patterns in various places with lots of cells, so forth, in this state, I would then have to say well then we have to be looking at a period of time which is greater. Whether it's a couple of hours or more, that would be a matter of judgment looking at the individual case.

MR. BECKER: Steve, I have to leave at 4:00.

MR. WALTERS: To hell with it.

MR. BECKER: Okay.

MR. WALTERS: I'm tired of being pushed on this case to do everything in a few minutes. I waited for an hour and a half for Pieper to prepare your witness, missed two planes because of it, don't give me that crap.

MR. BECKER: I'm leaving at four o'clock, we're concluding the depo.

Q. I'm talking now, I want to be clear, I'm talking about the case of Megan Butti; do you understand that?

A. I do.

Q. You found some red neurons in the brain tissue of Megan Butti; isn't that correct?

A. I found some cells which -- some nerve cells which were on their way to becoming red neurons. I found them scattered throughout the various parts of her brain.

Q. Did you find any neurons that meet the definition of a red neuron?

A. I don't recall. There may have been one or two we could have photographed to say that is what a red neuron is supposed to look like. That is probably what I did.

Q. Based upon the red neurons you found and including those that you say were on their way to becoming red neurons, what you saw in the brain of Megan Butti, in terms of these damaged neurons, do you agree that the presence of those neurons probably indicated hypoxic/ischemic injury to the brain of Megan Butti several hours before her demise?

A. No. I have to answer that question no. I can't infer that.

Q. Do you agree that the presence of those red neurons you observed in the brain tissue of Megan Butti possibly may indicate a hypoxic/ischemic injury to her brain several hours before her birth?

MR. BECKER: Objection to

the term possible. You may answer.
A. In terms of the realm of possibility, I don't think anyone has a complete yardstick on all of this. As a scientist I would have to say sure it's possible. I don't think it's probable. It's possible.
Q. Can you point me to any recognized text in the field of neuropathology that says that the presence of red neurons in the brain tissue of an infant can occur within one hour prior to death?
A. I'm unaware of such a citation.
Q. Are you not telling me that that is what you conclude in this case?
A. No, that is not the same thing. I'm saying that this particular issue of the time course of development of damaged neurons that culminated in what is known as a red neuron, there are discussions of this in a number of textbooks.
The general wisdom communicated there is that it takes many hours for these things to become evident and the figures vary between 8 and 24 hours in some textbooks. I don't happen to agree with that.
Q. You disagree with that?
A. I disagree with that general sweeping

statement. I have case material that tells me a different story. This is something that is not specifically discussed in great detail in any textbook I'm aware of.

Q. Doctor, the view that you have just expressed, in terms of the capacity of neurons in a newborn to undergo the changes that were evident in the brain tissue of Megan Butti in a period of one hour or less, that have been expressed by you, is contrary to the views expressed in every neuropathology textbook published in the United States; isn't that a fact?

MR. BECKER: Objection. You can answer.

A. I wouldn't put it so strongly. I would say the view expressed in most or all books that I'm aware of is not quite as rigorous as it could be. Probably parrots what others have said, so forth.

I don't think it's complete. If somebody says that is an unbridled truth, that is authoritative, I would say I do disagree, I don't think that is correct.

Q. Have you read the deposition testimony of Dr. Ashmead?

A. Of which one?

Q. Dr. Ashmead?
A. Yes, I did.
Q. You're aware in that deposition she expressed the view that because of the presence of red neurons in the brain tissue of Megan Butti she concluded that the insult to the brain occurred several hours prior to birth?
A. Right, I was aware of that.
Q. The view expressed by Dr. Ashmead is the view that is expressed in all of the neuropathology textbooks, is it not?
MR. BECKER: Objection.
A. That is not what she is saying. She did express the fact that, as I recall, it took up to 24 hours to get red neurons. I don't say that is impossible. I say that you can certainly see them well before that time.
If it's inferred that this brain was injured some hours before birth, I would have to disagree with that.
Q. You didn't answer my question, Doctor.
A. State it again, I'll try to do better.
Q. The view stated by Dr. Ashmead in her deposition, as far as the time that it takes to develop the red neurons as seen in the brain tissue

of Megan Butti, that view of Dr. Ashmead reflects the same view as expressed in every neuropathology textbook in this country; isn't that true?

A. With respect to the phenomenon, not with respect to this case.

Q. With respect to the phenomenon, let's take it step by step.

A. Sure.

Q. Your disagreement then is with the majority view expressed in neuropathology textbooks?

A. Yes.

Q. Thank you. Let's move on to something else then.

You mentioned, I think it's on the second page of your report, you talk about the -- I'm going to call it the migration of cerebellum cells through the foramen magnum, you know what I'm speaking of?

A. I do.

Q. You conclude that occurred in the course of some mechanical force applied to the infant, to the head, neck, what have you?

A. Yes.

Q. I'm not trying to be precise. If I summarize incorrectly you jump in, tell me. I'm trying to

get to the meat of it.

Is it not a fact, Doctor, when a fetus suffers hypoxic/ischemic injury to the brain, the brain not only exhibits changes in appearance but also in consistency, becoming much softer?

A. In the course of time, if given the time to reach that stage, sure, of course.

Q. Is it not true that in the brain of a fetus who has suffered hypoxic/ischemic injury, there often, if not most of the time, is found cerebellum cells in the spinal cord?

A. I don't know what the incidence of that is. If the child reachs the so-called respirator brain, that would be a common finding. There is a time course involved here. We have to pay attention to that.

Q. What is the time course that needs or let's put it this way -- I used the phrase time course because you did. Let me use a different phrase.

How much time must elapse between the hypoxic/ischemic injury and the migration of cerebellum cells into the spinal cord?

A. In the usual way I would guess probably on the order of 12 hours or more. It takes about 8 to 12 hours before the brain becomes sufficiently

soft, starts entry into the respirator brain stage where sloughing of the cerebellum tissue down into the cord would occur. I don't have specific information precisely when. I've written papers on this particular subject, the time course is about 8 to 12 hours.

Q. That could occur in the absence of any mechanical trauma to the head or neck?

A. Sure.

Q. May it -- when I say "it," the migration of cerebellum cells into the spinal cord -- be accelerated by pressure of the head or neck on a surface such as a large fibroid tumor?

A. In my view that is the mechanism by which or part of it by which extrusion of the cerebellum occurred. There was in fact physical force applied that basically squeezed the cerebellar cells down, caused them to break off irrespective of the hypoxic/ischemic injury.

Q. In the case of Megan Butti, before the delivery was commenced there was pressure of this infant against the fibroid tumor, in other words in the confined space of the uterus; isn't that correct?

A. I'm sure there was. The child was a breach

footling. My understand is the fibroid or fibroids were near the lower end of the uterus, clearly some portion of the child's anatomy would be impacted upon or at least in contact with that bump made by the tumor. What part, I don't know.

Q. For example, this child's jaw was displaced from pressure in utero against the fibroid, was it not?

A. I don't think I can make the conclusion it occurred before because of the fibroid or traumatic dislocation. I have no way to determine which occurred.

Q. Either way it didn't play a role in the death?

A. In and of itself, dislocation of the jaw is not a fatal event. I think as a part of the general scenario what is going on, I think it probably is an epiphenomenon part of it nonetheless.

MR. BECKER: Did you say epi?

A. E-p-i, co-factor.

Q. Doctor, did you develop any notes in your review of this material for this case?

A. Only insofar as when I looked at the

microscopic slides I made xerox images of the slides when I was looking at them, jotted some shorthand notes down relating to what I saw under those slides.

Q. Do you still have the slides themselves in your possession?

A. Yes, I do.

Q. Are you going to bring those to Cleveland with you?

A. Yes. I don't think I can bring them. My plan was to send them to Mr. Becker Fed Ex tonight.

Q. I don't mean to interfere, he may have reasons why he wants to use them.

A. I don't know either. I can do it either way.

Q. That's between you and Mr. Becker.

MR. WALTERS: I don't have any other questions, Doctor. You have the right to read the deposition, I think Mr. Becker probably wants you to exercise that right. Why don't you say it now that you want to read it.

THE WITNESS: Yes, that would be fine, I would like to.

Q. I'm paying for the deposition, I was a few minutes late getting started, you can consider it started on time at 2:30, how much do I owe you?

A. You are speaking to me?
Q. Yes.
A. Let's see, 1:30 until 3:00, an hour and a half.
Q. That is how I figure it.
A. $400 an hour.
Q. $400?
A. Right.
Q. That's what you charge Mr. Becker for testifying in Cleveland?
A. That would be the same rate. I use the same rate for testimony or deposition testimony.

MR. WALTERS: Thank very much, Doctor.

(Deposition concluded; signature not waived.)

ERRATA SHEET

PAGE LINE

I have read the foregoing transcript and the same is true and accurate.

_____

JAN LEESTMA, M.D.

The State of Ohio, :

County of Cuyahoga. : CERTIFICATE:

I, Constance Campbell, Notary Public within and for the State of Ohio, do hereby certify that the within named witness, JAN LEESTMA, M.D. was by me first duly sworn to testify the truth in the cause aforesaid; that the testimony then given was reduced by me to stenotypy in the presence of said witness, subsequently transcribed onto a computer under my direction, and that the foregoing is a true and correct transcript of the testimony so given as aforesaid.

I do further certify that this deposition was taken at the time and place as specified in the foregoing caption, and that I am not a relative, counsel or attorney of either party, or otherwise interested in the outcome of this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Cleveland, Ohio, this 21st day of March, 1994.

Constance Campbell, Stenographic Reporter,
Notary Public/State of Ohio.
Commission expiration: January 14, 1998.

Look-See Concordance Report

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UNIQUE WORDS: **983**
TOTAL OCCURRENCES: **2,270**
NOISE WORDS: **385**
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