

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

- - - - -
IN THE COURT OF COMMON PLEAS
- - - - -

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. :

- - - - -
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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17 - - - - -

I N D E XWITNESS:JAN LEESTMA, M.D.PAGE

Cross-examination by Mr. Walters

5

(NO EXHIBITS MARKED)

(FOR KEYWORD AND OBJECTION INDEX SEE APPENDIX)

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

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

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

12 MR. BECKER: No problem.

13 JAN LEESTMA, M.D.
14 of lawful age, a witness herein, called by the
15 defendants for the purpose of cross-examination
16 pursuant to the Ohio Rules of Civil Procedure,
17 being first duly sworn, as hereinafter certified,
18 was examined and testified as follows:

19 -----

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

23 MR. BECKER: So agreed.

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

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

7 THE WITNESS: Sure.

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

11 THE WITNESS: That's
12 correct.

13 -----

14 CROSS-EXAMINATION

15 BY MR. WALTERS:

16 Q. State your full name, please.

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

18 Q. What is your office address?

19 A. 428 West Deming Place, D-e-m-i-n-g, Chicago
20 40414.

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

23 A. That's correct.

24 Q. Are you associated with any teaching
25 institution?

1 A. I am not at present. I have held academic
2 rank before at the professorial level at the
3 University of Chicago.

4 Q. When was that?

5 A. About six years ago or so. That ended in
6 1987.

7 Q. Why did it end?

8 A. I left that institution to take up my present
9 position as the Associate Medical Director of
10 Neuropathology for the Chicago Institute of
11 Neurosurgery and Neuroresearch.

12 Q. That's presently where you are?

13 A. Yes.

14 Q. You are Associate Medical Director?

15 A. Yes.

16 Q. In that capacity do you treat patients?

17 A. I'm not a treating physician, I'm a
18 neuropathologist.

19 Q. I am sorry, putting it another way: In that
20 position do you review and render opinions on
21 pathologic samples or specimens for patients at the
22 Chicago Institute of Neurosurgery and
23 Neuroresearch?

24 A. I do.

25 Q. Have you ever testified before, Doctor?

1 A. Yes, I have.

2 Q. In the last five years how many depositions
3 have you given in medical/legal matters?

4 A. I can't be sure. It would exceed 100, I'm
5 sure.

6 Q. Are those in cases in which someone is suing
7 a doctor or hospital?

8 A. It would include that, although I do a fair
9 bit of criminal work as well.

10 Q. How many in the what I'll call the medical
11 negligence field in the last five years?

12 A. I don't know, 30 or 40, 50, half the cases at
13 least would fall into that category.

14 Q. Have you ever testified in court in a medical
15 negligence case?

16 A. Yes, I have.

17 Q. How many times in the last five years?

18 A. Probably 25 times maybe.

19 Q. In the cases in which you testified 30 to 50
20 times on deposition in the past five years, have
21 they been predominantly on behalf of the
22 plaintiffs, predominantly on behalf of defendants
23 or what is the mix?

24 A. It is about 50/50 on each side. I make no
25 effort to espouse one position or another. Some

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

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

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

10 Q. Who contacted you?

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

12 Q. Pieper?

13 A. Then we had contact with Mr. Becker.

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

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

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

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

23 Q. Summer of '92?

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

1 Summer of 1992.

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

4 A. From me you mean?

5 Q. From you.

6 A. Yes.

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

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

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

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

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

20 A. I haven't organized this chronologically.

21 Q. Do the best you can.

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

1 it.

2 MR. BECKER: Doctor --

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

7 A. That's how I'm answering.

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

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

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

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

18 A. Yes.

19 Q. How many pages?

20 A. One. I have correspondence here on June 14,
21 1993 to Mr. Becker.

22 Q. How many pages?

23 A. One.

24 Q. Anything else?

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

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

4 Q. Anything else?

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

6 Q. In the letters to Mr. Becker of June 14,
7 1993, and the undated one, apparently that was sent
8 by fax, that was sent last week to Mr. Becker by
9 you, do you render any opinions or note any
10 findings in them?

11 A. The only one that would fall into that
12 category would be the report letter of November 19,
13 1993.

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

17 A. That is a fair description, yes.

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

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

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

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

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

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

8 A. No, not at all.

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

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

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

18 A. Yes, to the best of my recollection.

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

23 A. Yes, I have.

24 Q. Tell me what those are.

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

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

11 Q. What is the date on the Naeye report?

12 A. April 19, 1992.

13 Q. The date on the Strife report?

14 A. November 2, 1993.

15 Q. The date on the Goldsmith report?

16 A. October 18, 1993.

17 Q. The Boehm report?

18 A. July 6, 1993.

19 Q. The Gilles report?

20 A. December 14, 1993.

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

24 A. I think that does it.

25 Q. Do you have more than one report from

1 Dr. Goldsmith?

2 A. I don't think so. This is the only one I'm
3 aware of.

4 Q. Did the material in any of the deposition
5 transcripts, other than perhaps Dr. Sawadi and
6 Dr. Ashmead, impact upon your opinions in this
7 case?

8 A. They simply add to what was basically in the
9 autopsy report. Clinical narratives that were in
10 the chart. They simply amplify what was there
11 regarding the circumstances of the delivery of the
12 child. I wouldn't say they have added anything in
13 particular to what I had at the beginning. Just
14 simply magnified it a little bit I guess.

15 Q. Do you presently hold any opinions in this
16 case different from or in addition to those set
17 forth in your report November 19, 1993?

18 A. No.

19 Q. Doctor, I didn't ask you, have you ever
20 testified in a case pending in the Cleveland area?

21 A. Yes.

22 Q. When was that?

23 A. I had occasion about 10 years ago to testify
24 in a criminal matter in court in Cleveland.

25 Q. How about a medical negligence case?

1 A. I haven't testified, I had some deposition,
2 many of these cases have been dealt with in one way
3 or the other, I didn't have a final testimony.

4 Q. I'm including in deposition, do you remember
5 in the last five years a deposition in any medical
6 negligence case in Cleveland?

7 A. Yes.

8 Q. What is the most recent you recall?

9 A. The most recent one was with Attorney Bill
10 Greene, G-r-e-e-n-e, on the matter entitled Maros,
11 M-a-r-o-s, medical negligence claim against Case
12 Western Reserve Medical Center.

13 Q. Did that involve the death of a neonate?

14 A. No.

15 Q. Did it involve a death?

16 A. Yes.

17 Q. You testified in that case on behalf of the
18 defense or the plaintiffs?

19 A. On behalf of the plaintiffs.

20 Q. Can you remember any other occasions in which
21 you testified in deposition in a case pending in
22 the Cleveland area?

23 A. I think that is it. I have another case
24 pending from Mr. Greene that hasn't -- I think it's
25 in such a preliminary way it may not be disclosed.

1 Q. Does it involve -- that other case for
2 Attorney Greene -- does that involve the death of
3 an infant?

4 A. I don't think so, no.

5 Q. Did you, Dr. Leestma, make any conclusion set
6 forth in your report of November 19, 1993 as to the
7 precipitating cause of death for Megan Butti?

8 A. Yes, I did.

9 Q. Whereabouts is that on your report?

10 A. It would be on the second page of the report,
11 near the top. Where I'm describing that the child
12 suffered a hypoxic/ischemic insult at the time of
13 delivery, that mechanical trauma to the neck and
14 brain stem area as well as the hypoxic/ischemic
15 injury led to the child's death. Some other
16 references to that as I go on through. Then the
17 summary of course at the bottom of the page I think
18 I said essentially the same thing.

19 Q. Doctor, at the time the delivery of this
20 infant was complete, the infant was handed over to
21 the pediatric staff, what was the probability of
22 survival for this infant?

23 A. I would say at that point it appeared to me
24 to be very, very guarded indeed. The child was in
25 very perilous circumstances. I couldn't decide on

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

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

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

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

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

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

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

21 Q. Does it have any meaning to you?

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

1 definition of that.

2 Q. I want you to give me your definition.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

25 Q. What textbooks come to mind that have

1 definitions of red neurons and descriptions of
2 them?

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

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

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

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

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

1 Q. As far as the shape, for example, of an
2 eosinophilic neuron, describe that for me?

3 A. Just repeat the last, I lost the last couple
4 of syllables.

5 Q. Would you describe for me the shape and
6 characteristics of a typical eosinophilic neuron?

7 A. Sure. The nerve cell would, depending on
8 what phase you caught the injury in, more than
9 likely would be not swollen, shrunken. Instead of
10 seeing the stripped bluish appearance of the
11 cytoplasm it would have a reddish, brick red
12 appearance to it. The nucleus might not be the
13 robust or round structure, somewhat compressed and
14 irregular. It would be losing or have lost any
15 definition, would be sort of blotted out or smeared
16 out, have a purplish or darker appearance than the
17 normal.

18 Q. Would the shape tend to be more of a, how
19 shall I put it, a ball shape rather than a more
20 elongated shape of a healthy neuron?

21 A. It depends which phase you have. Initially
22 probably as a cell is injured it swells for a short
23 period of time, collapses on itself. Generally I
24 would say it wouldn't have a rounded shape, more
25 than likely to have collapsed, still a triangular

1 shape, withered looking.

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

6 A. Yes.

7 Q. What is the significance of that?

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

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

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

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

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

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

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

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

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

22 Q. Have you spoken with him?

23 A. No, I haven't.

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

1 November 19th --

2 A. Yes.

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

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

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

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

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

1 dissolution.

2 Q. As far as the source of such hypoxic/ischemic
3 insult to the brain, that can be, I gather, from a
4 number of different sources?

5 A. Sure. Not otherwise specified, right.

6 Q. Could be compression of umbilical cord?

7 A. Could result from that, yes.

8 Q. Could result from some problem with the
9 placenta?

10 A. Yes, if it were severe enough.

11 Q. Can it result from some chemical problem
12 during the time the infant is in utero?

13 A. Did you say chemical?

14 Q. Some change in the body chemistry of the
15 mother that is transmitted to the child?

16 A. I suppose that is possible. That becomes
17 increasingly more difficult and a little less
18 critical of what is going on in the maternal
19 circulation. Clearly if the mother had a cardiac
20 arrest or some serious impairment of respiration or
21 circulation to slow down the stream it can bring
22 about a hypoxic/ischemic change in the baby.

23 Q. Dr. Leestma, before seeing these changes of
24 hypoxic/ischemic injury to the neurons, as you
25 indicate in your report, how much time must elapse

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

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

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

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

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

1 patterns of red neurons.

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

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

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

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

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

25 MR. WALTERS: No need for a

1 speaking objection. Show my objection to that.

2 MR. BECKER: You've got your
3 objection to my notation. I'm not done yet.

4 Doctor, I think the question is --

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

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

9 THE WITNESS: Yes, I
10 understand the question.

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

13 Go ahead, answer the question,
14 Doctor.

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

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

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

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

10 MR. WALTERS: To hell with
11 it.

12 MR. BECKER: Okay.

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

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

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

23 A. I do.

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

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

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

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

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

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

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

25 MR. BECKER: Objection to

1 the term possible. You may answer.

2 A. In terms of the realm of possibility, I don't
3 think anyone has a complete yardstick on all of
4 this. As a scientist I would have to say sure it's
5 possible. I don't think it's probable. It's
6 possible.

7 Q. Can you point me to any recognized text in
8 the field of neuropathology that says that the
9 presence of red neurons in the brain tissue of an
10 infant can occur within one hour prior to death?

11 A. I'm unaware of such a citation.

12 Q. Are you not telling me that that is what you
13 conclude in this case?

14 A. No, that is not the same thing. I'm saying
15 that this particular issue of the time course of
16 development of damaged neurons that culminated in
17 what is known as a red neuron, there are
18 discussions of this in a number of textbooks.

19 The general wisdom communicated
20 there is that it takes many hours for these things
21 to become evident and the figures vary between 8
22 and 24 hours in some textbooks. I don't happen to
23 agree with that.

24 Q. You disagree with that?

25 A. I disagree with that general sweeping

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

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

13 MR. BECKER: Objection. You
14 can answer.

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

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

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

25 A. Of which one?

1 Q. Dr. Ashmead?

2 A. Yes, I did.

3 Q. You're aware in that deposition she expressed
4 the view that because of the presence of red
5 neurons in the brain tissue of Megan Butti she
6 concluded that the insult to the brain occurred
7 several hours prior to birth?

8 A. Right, I was aware of that.

9 Q. The view expressed by Dr. Ashmead is the view
10 that is expressed in all of the neuropathology
11 textbooks, is it not?

12 MR. BECKER: Objection.

13 A. That is not what she is saying. She did
14 express the fact that, as I recall, it took up to
15 24 hours to get red neurons. I don't say that is
16 impossible. I say that you can certainly see them
17 well before that time.

18 If it's inferred that this brain
19 was injured some hours before birth, I would have
20 to disagree with that.

21 Q. You didn't answer my question, Doctor.

22 A. State it again, I'll try to do better.

23 Q. The view stated by Dr. Ashmead in her
24 deposition, as far as the time that it takes to
25 develop the red neurons as seen in the brain tissue

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

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

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

8 A. Sure.

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

11 A. Yes.

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

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

19 A. I do.

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

23 A. Yes.

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

1 get to the meat of it.

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

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

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

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

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

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

23 A. In the usual way I would guess probably on
24 the order of 12 hours or more. It takes about 8 to
25 12 hours before the brain becomes sufficiently

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

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

9 A. Sure.

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

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

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

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

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

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

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

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

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

20 MR. BECKER: Did you say
21 epi?

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

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

25 A. Only insofar as when I looked at the

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

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

7 A. Yes, I do.

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

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

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

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

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

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

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

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

1 A. You are speaking to me?

2 Q. Yes.

3 A. Let's see, 1:30 until 3:00, an hour and a
4 half.

5 Q. That is how I figure it.

6 A. \$400 an hour.

7 Q. \$400?

8 A. Right.

9 Q. That's what you charge Mr. Becker for
10 testifying in Cleveland?

11 A. That would be the same rate. I use the same
12 rate for testimony or deposition testimony.

13 MR. WALTERS: Thank very
14 much, Doctor.

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20 (Deposition concluded; signature not waived.)

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ERRATA SHEET

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

JAN LEESTMA, M.D.


1 The State of Ohio, :

2 County of Cuyahoga. : CERTIFICATE:

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

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

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

21 
22 -----
23 Constance Campbell, Stenographic Reporter,
24 Notary Public/State of Ohio.

25 Commission expiration: January 14, 1998.

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