

Bianca Keyes, etc., et al.
vs.
John P. Iafelice, M.D., et al.
Cuyahoga County Common Pleas
Case No. 357504

Deposition of Mark Jacobstein, M.D.
June 28, 2002

ORIGINAL

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IN THE COURT OF COMMON PLEAS

CUYAHOGA COUNTY, OHIO

BIANCA KEYES, etc.,)
 et al.,)
 Plaintiffs,)
 vs.) Case No. 357504
 John P. Iafelice,) Lillian Greene
 M.D., et al.,)
 Defendants.)

Deposition of MARK JACOBSTEIN, M.D., a
 Witness herein, called by the Plaintiffs for
 cross-examination pursuant to the Ohio Rules of
 Civil Procedure, taken before me, the
 undersigned, Heidi L. Tsimpiris, a Notary
 Public in and for the State of Ohio, at the
 offices of Mark Jacobstein, M.D., Children's
 Hospital Medical Center, One Perkins Square,
 Akron, Ohio, on Friday, the 28th day of June,
 2002, at 4:06 o'clock p.m.

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MARK JACOBSTEIN, M.D.

of lawful age, a Witness herein, called for
 examination, as provided by the Ohio Rules of
 Civil Procedure, being by me first duly sworn,
 as hereinafter certified, deposed and said as
 follows:

CROSS-EXAMINATION

BY MR. BECKER:

Q. Good afternoon, Doctor. Tell me your full name, please.

A. It's Mark David Jacobstein.

Q. And handing you what has been marked as Plaintiffs' Exhibit 1, would you identify that for the record?

A. It's my curriculum vitae.

Q. Is that current?

A. It is more or less current. I was more obsessive about keeping track of this when I was at University Hospitals in an academic setting than I have been recently, but, yes, it's current.

Q. When did you leave UH?

A. 1989, April of '89.

Q. Did you come directly here to Akron?

A. Correct.

APPEARANCES:

On Behalf of the Plaintiffs:

Becker & Mishkind Co., L.P.A.

By: Michael F. Becker, Attorney at Law
 Lawrence Peskin, Attorney at Law
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On Behalf of Defendant Dr. Muise via
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Reminger & Reminger

By: Colleen Petrello, Attorney at Law
 113 St. Clair Building
 Cleveland, Ohio 44114

(Plaintiffs' Exhibits 1 - 2
 marked for identification.)

Exhibit Page/Line
 Plaintiffs' Exhibit 325:18

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Q. So you've been here at Akron ever since you left UH?

A. That's correct.

Q. What was the reason you left UH?

A. This was a better job.

Q. Did you have anything to do with convincing Dr. Patel to come down here from UH? You don't have to answer that on the record, just --

A. More the surgeon.

Q. Okay. On the vitae that I looked at, it reflects that your wife is a lawyer?

A. Correct.

Q. And what law firm does she work for?

A. She's not working right now. I mean, she's not been working for, I don't know, for about 13, 14 years or so.

Q. Okay. All right.

MS. PETRELLO: Doctor, could you just either get a little closer to the speaker phone or keep your voice up?

(Discussion had off the record.)

BY MR. BECKER:

Q. Were you actually the echo lab director at UH?

5

1 A. I was actually the acting chief of
2 cardiology for the last three years, and I was
3 director of the echo lab essentially the whole
4 time I was there.

5 Q. All right. And after you left, did
6 Zonka become director of echo lab?

7 A. He actually came -- there was a period
8 of time when neither of us were there. So he
9 came after I had left.

10 Q. Okay. So there was little gap when it
11 was neither you nor Zonka between '89 and
12 roughly '90 or '92?

13 A. That's correct.

14 Q. Okay. Let me just -- do you have a copy
15 of the vitae? I just have some questions off
16 of it. You did some postdoctoral work in '81,
17 '82 --

18 MR. SCHOBERT: He wants you to look
19 at that in case you need to refer to it.

20 BY MR. BECKER:

21 Q. -- and American Heart Association at
22 Mount Sinai. Tell me just briefly what that
23 was about.

24 A. That was my -- equivalent of my third
25 year of cardiology fellowship. And I did dog

7

1 And I had investigated a compound
2 called Cyclocreatine which was a
3 noncommercially available chemical that was fed
4 to the rats ahead of time to see if it would
5 protect rat hearts from --

6 Q. Oxygen deprivation?

7 A. Correct.

8 Q. Okay. So you kind of just gave me a
9 summary of both these --

10 A. Yes.

11 Q. Okay. Under publications, you
12 coauthored something with Fanaroff, "Neonatal
13 Circulatory Changes Following Elective
14 Section"?

15 A. Yes.

16 Q. Tell me again --

17 A. That was as a fellow that I had done
18 that, and that was looking at what are called
19 systolic time intervals on M mode
20 echocardiograms and looking in normal babies
21 born after C-section compared to babies born
22 vaginally.

23 Q. What was the bottom line? What did you
24 conclude?

25 A. Some evidence that just C-section itself

6

1 research, animal research on the autonomic
2 nervous system and the affects on the heart.

3 And at the same time that I was
4 doing that, I was an instructor in pediatric
5 cardiology at Case Western Rainbow Babies and
6 Children's Hospital doing heart
7 catheterizations.

8 Q. You were -- you don't have any academic
9 positions currently?

10 A. I do. I'm --

11 Q. Is that reflected --

12 A. -- I'm associate professor of pediatrics
13 at Northeast Ohio University College of
14 Medicine.

15 Q. Okay. One of your grants has to do with
16 ischemia in hypertrophied myocardium. Do you
17 see that?

18 A. Yes.

19 Q. Long time ago, 15, 16 years ago. Tell
20 me briefly what that was about.

21 A. I was doing perfused rat heart
22 experiments doing phosphorus enema or
23 spectroscopy, looking at using that as a tool
24 to look at biochemical changes associated with
25 ischemia.

8

1 resulted in some delayed fall in pulmonary
2 vascular resistance after birth based on what
3 we call time intervals, measurements made off
4 of the M mode echocardiogram.

5 Q. And what was the upshot of that?

6 A. Well --

7 Q. C-section baby has a fall in pulmonary
8 vascular resistance?

9 A. No. C-section babies are known to have
10 more likelihood -- to have more likelihood to
11 have respiratory distress after birth.

12 Q. All right. They have less fluid?

13 A. Retain fluid.

14 Q. Sure.

15 A. And there was evidence that there was a
16 mild delay in the fall of -- the normal
17 postnatal fall in pulmonary vascular
18 resistance.

19 Q. All right. Any of the articles that
20 you've authored, coauthored that are reflected
21 on Plaintiffs' Exhibit 1 that would be
22 potentially relevant to the subject matter of
23 this case?

24 A. What's Plaintiffs' Exhibit No. 1?

25 MR. SCHOBERT: Your CV.

9

1 BY MR. BECKER:

2 Q. Your vitae.

3 A. Okay. Anything in here that would be
4 relevant to this current case?

5 Q. Yes.

6 A. No.

7 Q. Okay.

8 A. Specifically related to like infants and
9 diabetic mothers and that?

10 Q. Anything that you think is relevant to
11 the subject matter or bases for your opinion or
12 consistent with your opinion, anything along
13 those lines?

14 A. No.

15 Q. Okay. Have you had your deposition
16 taken before?

17 A. Yes.

18 Q. I just want to review the ground rules
19 with you. This is a question and answer
20 session under oath. It's important that you
21 understand the question I ask.

22 If the question doesn't make sense
23 or isn't artfully phrased, you stop me and tell
24 me so and I'd be pleased to attempt to rephrase
25 or restate the question, fair enough?

11

1 a verbatim transcript of that sometime in the
2 future?

3 MR. SCHOBERT: Well, as long as the
4 doctor doesn't have a problem dictating it, I
5 mean, I can attempt to have it --

6 BY MR. BECKER:

7 Q. I'd be happy to pay you for your time,
8 Doctor, but I don't want to take the time
9 today.

10 A. Okay.

11 Q. So if you would just kind of go through
12 the questions only.

13 A. This includes also like, I mean, I'm
14 keeping notes on the number of hours I've spent
15 reviewing things. You want that, too?

16 Q. No. I don't need that.

17 A. Okay. I'll skip that.

18 Q. Okay. Just take Plaintiffs' Exhibit 2
19 and look for questions you've asked.

20 A. Okay. Well, the first question mark I
21 put here was related to the facts of the case.
22 I had some confusion about after birth if this
23 baby was described as hyper or hypotonic.

24 Q. Okay.

25 A. And I put a question mark to that

10

1 A. Yes.

2 Q. However, unless you indicate otherwise
3 to me, I'm going to assume that you have fully
4 understood the question that has been posed,
5 and you're giving me your best and most
6 complete answer today, fair enough?

7 A. I understand.

8 Q. All right. Showing you what's been
9 marked as Plaintiffs' Exhibit 2, would you
10 identify this, please?

11 A. These are notes I've taken periodically
12 as I've been reviewing the case, more notes to
13 myself just -- some of it is factual things,
14 just noting things that were in the medical
15 records.

16 Some are questions that I've thought
17 about or at least at the time I was reading the
18 various reports that I was given that I was
19 thinking about.

20 Q. I'd just like to go through the
21 questions that you asked yourself.

22 A. Okay.

23 Q. Just if you can find them.

24 And, Jeff, could we get an agreement
25 rather than take the time today that I can get

12

1 effect.

2 Q. Okay. Next question.

3 A. Sometimes those things get dictated one
4 way and transcribed another way. I wasn't sure
5 if that was the problem.

6 The next question was the same
7 thing. I keep coming upon that.

8 Q. Okay. Next question?

9 A. Then I have a question here, "EEG
10 question abnormal." I'm not even sure what I
11 meant by that, whether I was questioning was
12 there an EEG done, or was it abnormal, or how
13 it was abnormal.

14 Q. Next question?

15 A. I have a question here that says,
16 "Question, prenatal versus postnatal asphyxia,"
17 and that regarded the deposition of Dr.
18 Sedioui?

19 MR. SCHOBERT: I think that's
20 correct.

21 BY MR. BECKER:

22 Q. Okay.

23 A. And I think that was one of the
24 questions that was raised, I think, in that
25 deposition. And I just wrote it down something

13

1 for me to think about.
 2 Q. Okay.
 3 A. Questioned role of hypertrophic
 4 cardiomyopathy in brain injury that this baby
 5 suffered. I questioned the prenatal -- I
 6 questioned whether there could be prenatal
 7 decrease in cardiac output secondary to the
 8 hypertrophic cardiomyopathy.
 9 Q. Let's stay with those two.
 10 A. Okay.
 11 Q. They seem somewhat relevant here. The
 12 first one you questioned was the role of
 13 cardiac -- cardiomyopathy -- hypertrophic
 14 cardiomyopathy and the role it plays in brain
 15 damage?
 16 A. Correct.
 17 Q. Okay. And as a result of that, did you
 18 engage in any research?
 19 A. I did not look up anything specific, no.
 20 Q. Okay. So what was -- what was the
 21 reason you questioned it?
 22 A. I was just noting this as this was
 23 something for me to think about as I was
 24 reviewing the case.
 25 Q. Okay.

14

1 A. And I mean I've -- after thinking about
 2 it all, putting it all together -- these were
 3 notes I was doing on the fly as I was reading
 4 these reports.
 5 Q. Okay.
 6 A. But I mean it is my opinion that the
 7 hypertrophic cardiomyopathy played a
 8 significant role in the events that occurred
 9 postnatally.
 10 Q. Okay.
 11 A. Possibly in something that may have --
 12 things that may have gone on prenatally.
 13 Q. Okay. When you use the word possibly --
 14 A. Yeah.
 15 Q. -- that helps me because I don't have to
 16 -- I mean it doesn't help me one way or the
 17 other, but I don't have to go into that area.
 18 I just need to explore your opinions in terms
 19 of probability. So your opinions --
 20 A. I think it's very probable, highly
 21 probable that it played a major role after
 22 birth.
 23 Q. Okay. And you don't have that opinion
 24 before birth?
 25 A. I'm less certain about that. I think

15

1 that's harder to know for sure.
 2 Q. Okay.
 3 A. And --
 4 MR. SCHOBERT: Wait. Go ahead if
 5 you have --
 6 BY MR. BECKER:
 7 Q. In terms of -- you indicated that it's
 8 possibly related to something before, but you
 9 don't have enough evidence, or experience, or
 10 education, or literature support to say that
 11 it's a prenatal thing; is that fair?
 12 A. I think that's correct.
 13 Q. Okay. I cut you off. We talked about
 14 the first -- there were two questions that
 15 peaked my interest.
 16 Did you get the second one, Larry?
 17 MR. PESKIN: No, I didn't get the
 18 second one.
 19 THE WITNESS: Whether there was
 20 prenatal decrease in cardiac output could have
 21 occurred secondary to the hypertrophic
 22 cardiomyopathy.
 23 BY MR. BECKER:
 24 Q. Okay.
 25 A. And the other question I had was the

16

1 role of the hypertrophic cardiomyopathy brain
 2 injury which I think we've just addressed.
 3 Q. Next question?
 4 A. The next question was about the name
 5 because I came upon a report where somebody
 6 referred to the baby as Nichole and I just
 7 wrote that down.
 8 I think the neurology consultant
 9 wrote down Nichole, and I just wanted to make
 10 sure that I wasn't confusing this. As I
 11 understand the first name is Bianca.
 12 Q. Yes, sir. Next question?
 13 A. Okay. I have a question -- again
 14 questioned the role of the hypertrophic
 15 cardiomyopathy in the brain injury. The same
 16 thing. There's a question prenatal versus
 17 postnatal effects of the same question.
 18 Questioned timing of the injury at
 19 birth, before birth, and I wrote down here I'm
 20 not sure I'm qualified to answer that.
 21 Q. Okay.
 22 A. Timing of the hypertrophic
 23 cardiomyopathy itself, when did that begin. I
 24 do think I'm qualified to comment on that.
 25 Q. Okay. When did it begin?

17

19

1 A. Well --
2 Q. Third trimester?
3 A. Yes.
4 Q. Okay.
5 A. I mean, hypertrophic -- it didn't occur
6 in the last two hours, or the last two days.
7 It's been well shown that this is generally
8 something that occurs over the last trimester.
9 Q. Okay. Next question?
10 A. That was it. That's it.
11 Q. Okay. Doctor, it's true that you looked
12 at the echoes of the BPP, the biophysical
13 profiles, of I think one was on the 28th of
14 September as well as October 7?
15 A. I did not see anything from the
16 biophysical profiles other than the report.
17 Q. So you never had an opportunity to look
18 at the echoes?
19 A. The echoes done as part of the
20 biophysical profile?
21 Q. Yes.
22 A. I did not --
23 Q. Did you ask to look at --
24 A. -- and I would not hold myself out as an
25 expert on doing general fetal ultrasound

1 A. Yes.
2 Q. Did you take any notes as a result of
3 your review?
4 A. No, I did not. If I did, it would be
5 something in here.
6 Q. Can you just give me a thumbnail sketch
7 of what you saw on the 10/7 versus the 10/25?
8 A. Yes. The 10/7/94 study, the first study
9 shows quite severe hypertrophic cardiomyopathy
10 with marked narrowing of the left ventricular
11 outflow tract and moderate mitral valve
12 insufficiency.
13 Q. Okay. Anything else?
14 A. No.
15 Q. 10/25?
16 A. The 10/25 study showed significant
17 improvement in the degree of left ventricular
18 hypertrophy. It was still abnormal, but not
19 nearly as severe as the first time.
20 Q. How do you treat left outflow tract
21 obstruction in a newborn?
22 A. You're talking about visa the infants of
23 diabetic mothers? There are different kinds of
24 left ventricular outflow tract obstruction,
25 first of all.

18

20

1 studies or biophysical profiles.
2 Q. But if there was an indication of the --
3 if there was an appearance or a view or a
4 window as you say in your business of the fetal
5 echo, would you be --
6 A. If there was a decent study of the fetal
7 heart, I would be qualified to comment on that.
8 Q. So since you've not looked at them, why
9 are they in your possession?
10 A. Those aren't. Those are postnatal
11 echocardiograms.
12 Q. Excuse me. So can you tell me the dates
13 of the postnatal?
14 A. Yes. This was -- the first one was, I
15 believe, on the day of birth, 10/7/94, and the
16 second one was 10/25/94. They were both done
17 at Rainbow Babies and Children's Hospital.
18 Q. Can you tell what time of day on 10/7/94
19 by looking at that?
20 A. Oh, no. I don't know that now. There
21 may be times list -- recorded on the tape.
22 When you get echocardiograms, it does list
23 times. I did not note that.
24 Q. Did you study the 10/7 and the 10/25/94?
25 Did you look at them?

1 Q. Okay.
2 A. So there are congenital birth defects.
3 I assume you're not asking me about that?
4 Q. Right.
5 A. The specific left ventricular
6 hypertrophy in the outflow tract obstruction
7 that occurs due to maternal diabetes really has
8 no specific treatment in support of.
9 Q. Okay. Not beta blockers or anything
10 like that?
11 A. In fact, beta blockers is one of the
12 things that's -- that was not used as far as I
13 can see in this girl, but that is commonly
14 used.
15 Same thing with giving fluids, but
16 there is nothing -- there is no specific --
17 there's no drug that makes it go away and
18 there's no surgery alternative for it. But,
19 yes, beta blockers are something that are used.
20 Q. What is generally the reaction of
21 treating hypertrophic cardiomyopathy secondary
22 to maternal gestational diabetes if one gives
23 pressers?
24 A. Generally speaking we try to avoid using
25 presser agents because theoretically it can

21

1 make the outflow tract obstruction worse.

2 Q. Okay. Why is that?

3 A. Well, part of the -- the problem with
4 the hypertrophic cardiomyopathy in general, and
5 certainly it's true of infants of diabetic
6 mothers, is that it's not a problem with the
7 heart squeezing down. It's stiffness and
8 thickening of pumping chambers so that the
9 heart doesn't fill with blood easily.

10 So it's a stiff pumping chamber that
11 can't relax, can't fill with blood. Presser
12 agents help the heart squeeze down better.
13 They do not particularly help the ability of
14 the heart to relax.

15 And by increasing heart rate, which
16 is one of the side effects from that medicine,
17 and by, if anything, increasing the strength of
18 the heartbeat, you may aggravate the blockage,
19 the blockage in the pathway out to the body.

20 Q. Okay. Have you looked at this child's
21 records, I suppose the prenatal as well as the
22 neonatal records of Bianca Keyes?

23 A. Yeah. I've got everything that I looked
24 at here. So I did look at prenatal -- I looked
25 at prenatal records for the mom and I looked at

23

1 You don't have to tell me the name of the case,
2 but --

3 A. I know. The first was a case where a
4 child had surgery on what was felt to be an
5 atrio-septo defect.

6 Q. Okay.

7 A. And it turned out there was no
8 atrio-septo defect. The surgeon honestly came
9 out and told that to the family.

10 Q. Okay.

11 A. And it ended up getting settled. I
12 didn't have to testify in that, just generated
13 a report. I reviewed a case for Plaintiff's
14 attorney on a baby that had Tetralogy of
15 Fallot and I think the complaint was that it
16 was more of a wrongful life than wrongful
17 death, but there was some problems that should
18 have been recognized because -- I don't
19 remember it too well.

20 I was mumbling. I think it was
21 what's called a wrongful life case. It was a
22 baby that had multiple problems. And the
23 lawsuit involved that it wasn't picked up
24 beforehand. They would have terminated the
25 pregnancy had it been picked up. And the baby

22

1 the baby's records after.

2 Q. May I look at your file real quick?

3 A. Sure.

4 Q. While I'm looking at this Doctor, did
5 you, either in preparation for your report or
6 in preparation for today's deposition, did you
7 engage in any medical research?

8 A. No.

9 Q. Tell me a little bit about how long you
10 have been doing medical/legal reviews.

11 A. Well, periodically I've been doing this
12 almost since I came on fellowship. So I guess
13 it's been about 20 years. I've probably done a
14 total of -- probably done a total of about 20
15 cases over 20 years.

16 Q. And have you reviewed cases for both the
17 medical provider as well as the patient?

18 A. I have. I think there's been three
19 cases that I've reviewed for Plaintiff's
20 attorneys, and all the others have been for
21 defense attorneys.

22 Q. And of the three Plaintiff's cases, do
23 you remember the subject matter of the cases?

24 A. I do remember two of them.

25 Q. Okay. Go ahead and tell me about that.

24

1 also had heart disease. And I was asked to
2 review that.

3 Q. So would it be fair for me to say that
4 maybe you do a couple of these a year?

5 A. Yeah. There will be like a year or two
6 when I don't get any. I don't advertise. I
7 don't know how people get my name exactly, but
8 I get asked to do these and I'm usually willing
9 to. But, yeah, like right now, I have a second
10 case that I'm reviewing kind of concurrent with
11 this.

12 Q. What is the subject matter of that case?

13 A. It's a baby with coarctation and
14 ventricular septal defect. And I haven't
15 reviewed it in a long time.

16 Q. Okay. Have you worked for Jeff Schobert
17 before or his law firm before?

18 A. I believe not. Not -- definitely not
19 for Mr. Schobert, and I don't think I've ever
20 done any cases for them.

21 Q. How about Buckingham Doolittle, the law
22 firm?

23 A. I don't think so.

24 Q. Can you read me that handwriting that's
25 on that note?

25

1 A. Yes. This says, "IDM hypertrophic
2 cardiomyopathy of IDM. Severe in utero.
3 Insult severe encephalopathy in utero and
4 multiple organ involvement and dysfunction."

5 Q. Okay. And why is that note on this
6 letter?

7 A. That was probably somebody was telling
8 me about the case as they were asking me, or
9 somewhere along the line. I don't know. I
10 don't remember when I wrote this. I did not
11 date it.

12 Q. But someone must have told you that?

13 A. Either that, or they called me again
14 about the case and I pulled this out and this
15 happened to be the first letter.

16 MR. BECKER: Let's mark that as
17 Plaintiffs' Exhibit 3.

18 (Plaintiffs' Exhibit 3
19 marked for identification.)

20 BY MR. BECKER:

21 Q. Handing you what has been marked as
22 Exhibit 3, would you identify that document?
23 What is it?

24 A. It's a letter from Mr. Schobert to
25 myself dated October 24, 2001.

27

1 Q. Tell me what IHSS is.

2 A. IHSS stands for idiopathic hypertrophic
3 subaortic stenosis. And it is another term,
4 although not the preferred term, for the
5 hypertrophic cardiomyopathy. The reason --
6 hypertrophic cardiomyopathy -- cardiomyopathy
7 means sick heart muscle. Hypertrophic means
8 abnormally thick.

9 And that condition can lead to
10 narrowing of the left ventricular outflow tract
11 and subaortic stenosis, but you can have the
12 same condition without subaortic stenosis. So
13 generally the preferred term that people use
14 now is just hypertrophic cardiomyopathy, but
15 they're synonyms.

16 Q. So they're synonymous?

17 A. Yes.

18 Q. IHSS and hypertrophic cardiomyopathy?

19 A. Yes.

20 Q. Now, would you defer to another
21 specialist what happens to a fetus in the event
22 that the mother's gestational diabetes isn't
23 greatly controlled or is poorly controlled?

24 A. You mean the effects during the
25 obstetrical care?

26

1 Q. Do you know any of the caregivers
2 involved that are party defendants in this
3 case?

4 A. None of them -- well, I should say I
5 probably know some of the pediatric folks that
6 were taking care of the baby after.

7 Q. Okay. But I'm more specifically
8 interested in Dr. Thompson, Chernin, or Muise?

9 A. I know none of them.

10 Q. Okay. All right. Let's cover your
11 opinions, Doctor, that I believe are reflected
12 in the April 1, 2002 report. Do you have a
13 copy of that report at hand?

14 MR. SCHOBERT: I think it's probably
15 underneath that file there, Mike.

16 MR. BECKER: Sorry.

17 MR. SCHOBERT: That's all right.

18 BY MR. BECKER:

19 Q. There it is. Doctor, there was an
20 expert or two early on in this case that had
21 the opinion that this child had, and I'm going
22 to screw this up, Jeff, IHSS?

23 A. Uh-huh.

24 Q. Is that right?

25 A. Yes.

28

1 Q. Yeah.

2 A. Yes.

3 Q. Now, let's talk about your main opinion
4 here that is in the early neonatal period or
5 postnatally you feel that part of this child's
6 response of the heart was due to the cardiac or
7 the hypertrophic cardiomyopathy; is that fair?

8 A. Correct.

9 Q. Okay. Now, can you separate out how
10 much of the child's heart response was due to
11 asphyxia?

12 A. I mean the term asphyxia to me means
13 sort of interruption of oxygen and perhaps
14 delivery to the -- oxygen delivery to the
15 tissues.

16 Asphyxia can cause heart dysfunction
17 with nothing wrong with the heart, and heart
18 conditions can cause the, whatever we describe
19 when we talk about asphyxia. And it can be a
20 vicious cycle where one makes the other worse.

21 Q. Okay. Are you --

22 A. I'm not sure I answered your question.

23 Q. No. I think you did. Are you familiar
24 with a concept of -- some neonatologists refer
25 to as the ability of a fetus to make the

29

1 "neonatal transition"? Are you familiar with
2 that?

3 A. Yes. There's a circulatory trend that
4 -- there's probably more than just circulatory,
5 but at least I'm knowledgeable about the
6 circulatory transitions that occur from
7 prenatal, postnatal life.

8 Q. Okay. Do you have an opinion as to
9 whether or not this hypertrophic cardiomyopathy
10 played any part or deterrent in the quote
11 "neonatal transition" in the birth?

12 A. Yes, I think the hypertrophic
13 cardiomyopathy played a significant role in the
14 adaptation to postnatal life.

15 Q. Are you familiar with any recent
16 literature in the last couple years that stands
17 for the proposition that the most common reason
18 fetuses do not make the neonatal transition is
19 profound birth asphyxia?

20 MR. SCHOBERT: Objection.

21 THE WITNESS: I'm not -- I'm not
22 aware of this.

23 MS. PETRELLO: Could I ask everyone
24 to keep their voices up?

25 THE WITNESS: Sorry.

31

1 and they just said edema. I never saw the
2 baby.

3 Q. Okay. And would you -- how would you
4 define hydrops?

5 A. Hydrops is evidence of fetal heart -- of
6 in utero fetal heart failure.

7 Q. Okay. But is there a marker that you
8 see fluid in a certain area first like the
9 abdomen or the lungs?

10 A. You can see it in the skin. You can see
11 it in the chest space in the abdomen. So
12 sightings in the lungs, in the skin is evidence
13 of fetal heart failure.

14 Q. Now, the reasons you have cited to me as
15 to why you feel the hypertrophic cardiomyopathy
16 played a role, multi-system organ failure, that
17 can be explained from birth asphyxia, correct?

18 A. True. I guess I'm also basing it on the
19 way the heart looked on the ultrasound study.
20 That is a major find.

21 Q. The way it looked, but of course the way
22 it looked could be in response to asphyxia?

23 A. No. That I disagree with. The
24 ultrasound appearance of an asphyxiated heart
25 is generally one that is enlarged, not

30

1 BY MR. BECKER:

2 Q. Now, I want to understand each and every
3 bases for your opinion that it was the
4 hypertrophic cardiomyopathy that impacted the
5 heart function in the first -- is it the first
6 hour or the first week of life?

7 A. Certainly the first hour is significant,
8 but probably for many days.

9 Q. Okay. Explain that to me.

10 A. Well, the child had, first of all, no
11 heart rate or respiratory rate at birth and
12 that persisted for 20 minutes. Eventually the
13 heart rate did recover. The baby continued to
14 have significant multi-organ dysfunction,
15 including kidney abnormalities.

16 And finally the baby remained very
17 edematous for up to weeks after -- after the
18 event and required support with fluids. And at
19 the time, they were using I believe it was
20 Dopamine to support the heart circulation for
21 a number of weeks afterwards.

22 Q. Well, when you describe the baby as
23 being edematous, it wasn't true -- a true
24 hydrops picture, correct?

25 A. I'm just going by what was in the record

32

1 squeezing down well, and often with leaking
2 tricuspid valve.

3 This was a picture of a small volume
4 left ventricle, smaller than normal volume in
5 left ventricle with very thick walls, severe --
6 significant subaortic stenosis and mitral valve
7 insufficiency. I do not believe asphyxia alone
8 could give that picture, that ultrasound
9 picture.

10 Q. Well, could asphyxia in part give that
11 picture?

12 A. I don't think so. I think that is
13 clearly explained on the maternal --
14 uncontrolled maternal diabetes.

15 Q. So besides the way the heart looked on
16 the ultrasound --

17 MR. SCHOBERT: Wait, wait --

18 THE WITNESS: I'm sorry. I should
19 probably say poorly controlled rather than
20 uncontrolled.

21 MR. SCHOBERT: I'm sorry, Mike. Go
22 ahead.

23 BY MR. BECKER:

24 Q. So the way the heart looked, the
25 multi-system organ failure, what were the other

33

1 reasons?

2 A. And the course immediately at birth and

3 subsequently in the next days.

4 Q. Okay. Now, did you notice -- did you

5 study and take a look at the base excess of the

6 -- this baby?

7 A. The baby had significant acidosis at

8 birth.

9 Q. Okay. Now, you don't get significant

10 acidosis at birth in a matter of a half an

11 hour, do you, or would you defer to a

12 neonatologist?

13 A. I would. I would defer it to a

14 neonatologist.

15 Q. Okay. And as far as the number, the

16 base excess, whether it's 20 or 25 or 30 as to

17 assisting one in timing this asphyxia or the

18 acidosis, you would again defer to a

19 neonatologist?

20 A. Yes.

21 MR. BECKER: Jeff, can we get a

22 stipulation on the record that before this

23 deposition I did obtain and fax to your office

24 today a report from Dr. Reed Thompson?

25 MR. SCHOBERT: Yeah. I mean, that's

35

1 stipulate as to that comment. I mean, you

2 certainly had an opportunity to discuss this

3 with him, although albeit brief.

4 BY MR. BECKER:

5 Q. Doctor, do you know Dr. Reed Thompson at

6 Johns Hopkins University in Baltimore?

7 MR. SCHOBERT: Object.

8 Go ahead.

9 THE WITNESS: No, I do not.

10 BY MR. BECKER:

11 Q. Okay. Now, you know, I didn't ask you

12 whether or not you saw any evidence of

13 congestion within the neonatal echoes,

14 particularly on the 7th?

15 A. I do not -- congestive heart failure?

16 Q. Yes.

17 A. That is not something you can see on an

18 echocardiogram.

19 Q. Okay. Would you agree that there's a

20 high incidence of hypertrophic cardiomyopathy

21 in fetuses whose mothers have diabetes?

22 A. Yes.

23 Q. Would you agree it's not clear often in

24 literature whether there is a linear

25 relationship between the degree of control of

34

1 an obvious. You sent to my office at some

2 point -- I received it late this afternoon. I

3 don't know exactly what time it was faxed over,

4 but by --

5 MR. BECKER: Sometime today?

6 MR. SCHOBERT: Sometime today, this

7 afternoon, yes.

8 BY MR. BECKER:

9 Q. Doctor, do you know Dr. Reed Thompson --

10 MS. PETRELLO: Excuse me. Did you

11 fax that to Mark?

12 MR. BECKER: Yes.

13 MR. SCHOBERT: But before we go on,

14 just so I can put on the record, again, I did

15 not supply that report to Dr. Jacobstein for

16 review based on our ongoing discussion that I

17 am not waiving any arguments I have about the

18 identification of the expert.

19 And I will, as long as I've got an

20 ongoing objection that these questions don't

21 waive my arguments, if you want to make --

22 question him about a consultant, that's fine,

23 but I'm not waiving any argument that I have as

24 to your ability to use that expert.

25 MR. BECKER: Well, I'm not going to

36

1 glucose during pregnancy and the severity of

2 the hypertrophic cardiomyopathy?

3 A. My understanding, and I may not be the

4 greatest expert on it, but my understanding is

5 that there is a relationship between the degree

6 of control. It's not a perfect relationship so

7 that you can get hot wires on both sides, but

8 that there is a relationship between the degree

9 of control and hypertrophic cardiomyopathy.

10 And in my own experience, the worst

11 cases of hypertrophic cardiomyopathy of IDM has

12 been the ones where there has been poor

13 control.

14 Q. Can you cite me to any literature --

15 A. No.

16 Q. -- to support that proposition?

17 A. No.

18 Q. That's just your personal experience?

19 A. And also from -- and based on reading of

20 literature in the past. I cannot specifically

21 name you any. I did not do any type of

22 literature research for this review.

23 Q. Can we agree that hypertrophic

24 cardiomyopathy in an infant born to a

25 gestational diabetic mother is almost always

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1 transient and resolves spontaneously without
 2 intervention within a matter of months?
 3 A. It definitely resolves spontaneously
 4 usually -- I don't know if months, but
 5 significantly resolves within months and
 6 completely resolves typically within a year.
 7 But that doesn't mean that it always does that.
 8 It can be a life-threatening condition.
 9 Q. Can we agree that in cases of extreme
 10 hypertrophy, most infants are asymptomatic?
 11 MR. SCHOBERT: I'm sorry. Can you
 12 repeat the sentence?
 13 BY MR. BECKER:
 14 Q. In cases of severe hypertrophy, most
 15 newborns are asymptomatic?
 16 A. I would be willing to say that most
 17 hypertrophic cardiomyopathy that occurs in
 18 infants of diabetic mothers causes no symptoms.
 19 Q. Okay.
 20 A. I guess I would object to the -- I'm not
 21 sure what you mean by severe hypertrophic
 22 cardiomyopathy. I think severe hypertrophic
 23 cardiomyopathy is associated with symptoms.
 24 Did I make that distinction?
 25 MR. BECKER: Yes.

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1 condition played a significant role in why that
 2 child was so sick right at birth.
 3 Q. Okay. But whether or not -- what role
 4 -- how that led to -- do you have an opinion as
 5 to whether or not this low or slow neonatal
 6 transition due to the congestive heart failure
 7 or low cardiac output, do you have an opinion
 8 as you sit here today whether or not that led
 9 to any brain damage in Bianca, or would that be
 10 outside of your specialty?
 11 MR. SCHOBERT: Objection.
 12 Go ahead.
 13 THE WITNESS: I mean, I might have
 14 some opinions on it. I would -- I guess I
 15 would defer to a neurologist in terms of -- I
 16 mean, I feel comfortable talking about the
 17 heart condition and what affected it.
 18 It is known that severe low cardiac
 19 output states can cause brain damage, but I'm
 20 not a neurologist. I feel a little
 21 uncomfortable saying exactly when the brain
 22 damage occurred.
 23 BY MR. BECKER:
 24 Q. Okay. Do you have an opinion as to
 25 whether or not this child had sustained brain

38

1 We're going to take a short
 2 two-minute break.
 3 THE WITNESS: Okay.
 4 (A short recess was had.)
 5 BY MR. BECKER:
 6 Q. Doctor, I understand your opinion to be
 7 that the hypertrophic cardiomyopathy secondary
 8 to the mother's gestation diabetes was in part
 9 responsible for some asphyxia that was
 10 occurring in the neonatal period; is that fair?
 11 MR. SCHOBERT: Objection.
 12 THE WITNESS: I'm sorry. Could you
 13 restate that, please?
 14 BY MR. BECKER:
 15 Q. I just want to understand what you feel
 16 flowed from the newborn, stiff heart, poor
 17 functioning heart, what flowed from that?
 18 A. I believe that that very stiff left
 19 ventricle was destined to provide low cardiac
 20 output, congestive heart failure, and affect
 21 the transition from the fetal to the postnatal
 22 circulation.
 23 And that -- I don't know that -- I'm
 24 sure there were other factors involved. These
 25 are complex issues, but I believe the heart

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1 damage at the time it was born -- by the time
 2 it was born?
 3 MR. SCHOBERT: Objection.
 4 Go ahead.
 5 THE WITNESS: Same thing I would say
 6 before. I think it is certainly -- there have
 7 been reports that I know of of stillborns and
 8 fetal sudden deaths and due to heart conditions
 9 and certainly due to hypertrophic
 10 cardiomyopathy.
 11 And I think there is certainly a
 12 possibility. I know legally that's not, but
 13 let me just speak this out, that there's
 14 certainly a possibility there may have been
 15 insults to the baby's brain in utero that
 16 relate to that heart condition.
 17 Q. Okay.
 18 A. I think that's a harder question to get
 19 at. And at this point, I would -- would not be
 20 able to -- would defer to other people as to
 21 whether it's more than likely that that was
 22 going on.
 23 Q. Do you have an opinion -- well, strike
 24 that.
 25 Do you have any disagreement with

41

1 the interpretation at University Hospital of
2 the people that did the studies of 10/7 and
3 10/24?

4 A. No.

5 Q. Do you know the people that did the
6 interpretation?

7 A. I do.

8 Q. Okay.

9 A. I think it was Dr. Levine, Mark Levine.

10 Q. Who is no longer with UH as well?

11 A. He is on the east coast somewhere.

12 MR. BECKER: That's all I have,
13 Doctor.

14 MR. SCHOBERT: Colleen?

15 MS. PETRELLO: I don't have any.

16 Thanks.

17 - - -

18 (Deposition concluded at 5:00 o'clock p.m.)

19 - - -

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C E R T I F I C A T E

STATE OF OHIO,)
) SS:
SUMMIT COUNTY.)

I, Heidi L. Tsimpiris, Notary Public within and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within named witness, MARK JACOBSTEIN, M.D., was by me first duly sworn to testify the truth, the whole truth and nothing but the truth in the cause aforesaid; that the testimony then given by the witness was by me reduced to Stenotypy in the presence of said witness, afterwards transcribed upon a computer; and that the foregoing is a true and correct transcription of the testimony so given by the witness as aforesaid.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified, and was completed without adjournment.

I do further certify that I am not a relative, employee of or attorney for any of the parties in the above-captioned action; I am not a relative or employee of an attorney of any of the parties in the above-captioned action; I am not financially interested in the action; and I am not, nor is the court reporting firm with which I am affiliated, under a contract as defined in Civil Rule 28(D).

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Akron, Ohio on this 9th day of July, 2002.

Heidi L. Tsimpiris
Heidi L. Tsimpiris, Notary
Public in and for the State of Ohio.

My Commission expires December 28, 2004.

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