THOMAS J. LYZEN, etc., et al. — Plaintiffs
vs.
CHANDRAKANT PATEL, M.D., et al. — Defendant

* IN THE COURT OF COMMON PLEAS, CUYAHOGA COUNTY, OHIO
* (Pages: 1-75)
* JUDGE BURT GRIFFIN
* CASE NO.: 307715

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Deposition of GROVER M. HUTCHINS, M.D., commenced on Wednesday, December 15, 1999, at 11:30 a.m., at The Law Offices of Venable, Baetjer & Howard, L.L.P., 1400 Mercantile Bank Building, 2 Hopkins Plaza, Baltimore, Maryland, 21202, before Stephanie House.

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Reported by:
Stephanie House

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PROCEEDINGS

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(Whereupon, July 28, 1998 report, Dr. Hutchins' Curriculum Vitae and Surgical Pathology Report dated 9/27/94 were premarked Exhibit Numbers 1-3, respectively, for identification.)

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Whereupon --

GROVER M. HUTCHINS, M.D.,

the Deponent, called for examination by the Defendant Levine, having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

EXAMINATION BY MR. ROSMAN:

Q. Dr. Hutchins, could you give us your full name, please?

A. Grover M. Hutchins.

Q. Dr. Hutchins, my name is Warren Rosman, I represent Dr. Marc Levine, one of the Defendants in this case captioned Lyzen versus Patel.

I take it you've had your deposition taken before?

A. I have.

Q. Okay.

MR. MOSCARINO: Warren, can I just interrupt for one second?

MR. ROSMAN: Yes.

MR. MOSCARINO: I'm sorry, this is George Moscarino for the court reporter. I just want the record to reflect just that we're doing this deposition in part by phone, not by choice. That Mr. Becker, myself and Mr. Cullen headed out to Baltimore today. We could not get into Baltimore because of fog. We're now in Philadelphia.

We're going forth with the deposition by phone because the doctor's there and it's been scheduled, but I'm going under the express condition that I have the right to redepose the doctor at a later time if I need to.

I elected not to do it by phone the first time because my understanding is that Dr. Hutchins

has some color enhancements or some type of illustrations of the slides that are at issue in this case, specifically with respect to, I'm sure the issue of EFP and the other heart abnormalities. I may not need to question him at all, I may be able to just look at the slides, but I have to have that expressed agreement from the Plaintiff's lawyer, otherwise I have an objection to more forward at this point in time. Okay.

MR. CULLEN: I will just join that and I think Mr. Becker intends to move forward.

MR. BECKER: That's fine. It's my understanding that if there is a need, we will do it by phone, but go ahead.

MR. MOSCARINO: And I can't agree that we'll necessarily go by phone. I certainly don't want to go to Baltimore again, I just have to review the transcript and the slides.

MR. BECKER: Go ahead, Warren.

MR. ROSMAN: Thank you.

BY MR. ROSMAN:

Q. Doctor, if there's any questions that you don't understand, will you speak up and say something and I'll try to reword it for you so that you do understand it?

A. Yes.

Q. And if there's any question of mine that you don't hear well, will you also speak up and say something to me?

A. I will.

MR. ROSMAN: Thank you.

And just so the record is very clear, Dr. Hutchins, myself, the court reporter and Mr. Auciello are here in Baltimore today on December 15, 1999.

And Mr. Becker and Mr. Moscarino and Mr. Cullen are in Philadelphia because their plane was diverted because of fog. And I'm glad you all were able to land someplace.

BY MR. ROSMAN:

Q. Okay. Dr. Hutchins, I take it we have labeled your CV as Exhibit 3; is that correct?

A. I'm not sure of the number.
MR. AUCIELLO: Two.
Q. Two. Do you have that CV?
A. Yes. Here it is. It is indeed 2.
Q. Okay. Thank you. Doctor, may I also have your file on this case?
A. (Handing).
Q. Thank you. Let's go off the record.
(Whereupon, there was a discussion off the record and photographs were marked Exhibit Number 4 for identification.)
Q. Doctor, you've been given certain documents to review in this case?
A. Yes.
Q. Which documents were you given?
A. There's some selected clinical records. There's an autopsy report. The pathology report from the resected heart. The deposition of Dr. Redline.
A report from a physician whose name I don't recall.

Q. Is that Dr. Alachlin (Phonetic)?
A. Yes. The slides that were prepared from the resected heart and the slides from the autopsy.
Q. Are these photocopies of something?
A. They're photocopies of the slides that I reviewed.
Q. Okay. And is this one page, your personal notes?
A. Yes.
Q. And then these are the photographs, these are the blowups?
A. I'm sorry, those are electronmicrographs I had forgotten to mention.
Q. And then in the blue folder, these are the --
A. Those are the --
Q. -- slides.
A. -- 35 millimeter photographs and color prints that I had prepared.
MR. ROSMAN: Okay. Thank you. We're going to mark your notes as the next exhibit.

(Whereupon, Handwritten Notes were marked Exhibit Number 5 for identification.)
Q. That's Exhibit Number 5. And what was in this package?
A. These are prints of the electronmicrographs that were prepared from the resected heart.
Q. Okay. And that will be labeled Exhibit 6.
(Whereupon, Prints were marked Exhibit Number 6 for identification.)
Q. Doctor, could you quickly go through your education for us?
A. I graduated from the Johns Hopkins University School of Arts and Sciences in 1957, the Johns Hopkins University School of Medicine in 1961. Did a training in anatomic pathology at the Johns Hopkins Hospital as an intern, assistant resident and chief resident between 1961 and 1965.
Did a year of fellowship training in experimental pathology at the Scripps Clinic and

Research Foundation in La Jolla, California. Subsequent to that, returned to Johns Hopkins on the staff of both the Department of Pathology in the University and the Department of Pathology at the Johns Hopkins Hospital.
Q. Okay. What is your current position at Johns Hopkins Hospital?
A. I am a member of the active staff in pathology at the Johns Hopkins Hospital. I am a professor of pathology in the Johns Hopkins University School of Medicine.
Q. And are you director of a pathology institute or --
A. No.
Q. Okay. I see something on your letter that you sent us on your expert's report that says: Director of Autopsy Pathology.
A. That is correct. At the time that I wrote this report, actually I had just given up being Director of Autopsy Pathology, having reached age 65.

Q. So you are no longer the Director of Autopsy Pathology?
A. Correct.
Q. All right. And where do you have hospital privileges, sir?
A. I have privileges to the extent that one has privileges for patient admission and so forth at Johns Hopkins. I have visiting appointments at Baltimore VA Medical Center and the Hopkins Bayview Campus.
Q. And where are you licensed to practice medicine?
A. State of Maryland.
Q. And are you board certified?
A. I'm board certified in anatomic pathology and in pediatric pathology.
Q. Is there a particular type of pathology that you specialize in?
A. My major interest over the years has been in autopsy pathology, and within that, in cardiovascular, pulmonary and pediatric pathology.

Q. Are there pathologists on staff at Hopkins who specialize in pediatric pathology?
A. Yes.
Q. Is pediatric pathology one of your specialties?
A. Yes.
Q. Doctor, I take it that your CV has been labeled as Exhibit 2; --
A. Yes.
Q. -- is that correct?
And in that CV, have you marked certain articles and texts that are pertinent to this case?
A. I have identified several papers and one book chapter that I think are relevant to the issues of the case.
Q. Okay. And are those marked in pencil?
A. I did not mark them on the CV.
Q. Oh. Where did you mark them?
A. I have the numbers written on this little scrap of paper.
Q. Okay. Can you give us those numbers?

A. In the Bibliography Section of my curriculum vitae, the numbers that are relevant are 10, 12, 15, 37, 77, 84, 131 and 133, among others. In the book chapter section, the one of most relevance is 45.
Q. Okay. And are there any others?
A. There are a number of papers that deal with various aspects of cardiac development, cardiac malformations and cardiac pathology in general, but the ones that I have enumerated are the most relevant to the issues in this case.
Q. Okay. Thank you.
And, Doctor, has your license ever been suspended or revoked?
A. No.
Q. Have you ever been convicted of a felony?
A. No.
Q. Okay. And at the medical school, do you teach any specific courses?
A. I teach in the general pathology course that's given to the second year medical students.

I teach in the context of the autopsy service at the hospital to the people who are in training as pathologists.
Q. Doctor, during this past year, how many legal depositions, and I'm not saying as opposed to illegal depositions, but depositions given in a legal context have you had?
A. I don't know the exact number. It's probably 25, 30, something like that.
Q. This just during 1999?
A. Correct.
Q. And during 1999, how many times have you testified at trial or have you been videotaped for trial?
A. I've testified in court four times. I don't recall being videotaped. It may have happened once or twice.
Q. Doctor, in terms of testifying -- and I take it this was all as an expert?
A. Yes.
Q. And would I also be correct in assuming

that these are all cases that do not involve patients of yours?

A. Yes. If I understand your question correctly, the answer is yes.

Q. Just so we're clear, the question, if I can reword that, these are cases where you are hired as an expert, rather than you testifying as a fact witness concerning someone who was a patient at Hopkins Hospital?

A. That's correct. That's correct.

Q. And in terms of testifying, was 1999 a fairly normal year for you?

A. Yeah. Maybe one or -- yeah, that's about average.

Q. And how long has this kind of -- have you had this type of rate of testifying in the legal matters for the, let's say, for the last -- would it be for the last 10 years or so?

A. Yeah, something like that.

Q. Doctor, have you ever been sued for malpractice?

A. No, I have not.

Q. Do you know how Mr. Becker came into contact with you?

A. No. I have no idea how he got my name.

Q. Doctor, do you and Mr. Becker have a particular fee arrangement?

A. My fee is $400 an hour for whatever I do.

Q. Doctor, do you know how much time you've spent on this case up until today?

A. It's probably somewhere around 8 to 10 hours.

Q. Doctor, are you listed in TASA or one of the expert services?

A. Not to my knowledge. I don't know what TASA is, but I am not -- I have not listed myself, so to speak.

Q. Doctor, have you had any contact with Mr. or Mrs. Lyzen?

A. No.

Q. Earlier you told us that you had been Director of Autopsy Pathology; is that correct?

A. That's correct.

Q. And I take it that that was an administrative position?

A. Yes.

Q. And what years were you director of that?

A. Where's my CV?

Q. I'm sorry.

A. I don't remember this. 1976 until 1998.

Q. And during those years what would you say was your percentage of work that was administrative?

A. Relatively small component. Probably less than 10% of my time.

Q. Doctor, do you know Dr. Raymond Redline of Cleveland, Ohio?

A. I don't know him personally. I've encountered his name on publications in the past.

Q. Do you know Dr. Chin of Children's Hospital of Pennsylvania or Philadelphia?

A. No, I do not.

Q. Do you know any of the Defendants in this

case, and that would include Dr. Marc Levine, Dr. Zahka, Dr. C. Patel?

A. I believe Dr. Zahka had been at Hopkins in the past. If that is the same person, I would know him.

Q. I believe it is the same person.

Doctor, do you know how to read an echocardiogram?

A. No.

Q. And, Doctor, have you seen the extracted heart in this case?

A. No, I have not.

Q. Do you have any plans to see that heart?

A. I think there was some indication that it was no longer available.

Q. If it were available, would you have any plans to see it?

A. It would be of interest to me to look at it.

MR. BECKER: The record should reflect that the representation by defense counsel to my

office is that that original heart is summarized and it has been discarded and it is no longer in existence.

MR. ROSMAN: Michael, are you saying that?

MR. BECKER: I'm saying that it's the representation that was made to me by you and others in this case and I'm just stating that for the record right now.

MR. AUCIELLO: On behalf of the record, I haven't made such a representation.

MR. ROSMAN: And I can say that I haven't made that representation and I can tell you specifically, Mr. Becker, that Dr. Redline, at his deposition, told us that the extracted heart still exists.

MR. BECKER: Not true. You have to talk to P.J. Mooney. He thought it did and then he checked and it was gone and then it was discarded, according to P.J. Mooney at the direction of Dr. Patel.

MR. ROSMAN: You mean P.J. Malnar.

MR. BECKER: P.J. Malnar, excuse me.

MR. ROSMAN: That's okay. And we didn't have that information, you had it, Mr. Becker.

MR. BECKER: You know it now, Warren. Let's try to move it up one notch in gear.

MR. MOSCARINO: Just so the record is clear, there is correspondence from my office that the hospital informed Mr. Becker at his request of attorney concerning whether or not --

MR. ROSMAN: George, we can't hear you.

MR. MOSCARINO: I do want to speed things up, but there is correspondence from my office regarding the fact that this heart is no longer in existence. I did read Dr. Redline's deposition where he says that. The only thing that I don't know which is true at all is his representation that Dr. Patel had anything to do with the destruction of the heart. My understanding is that it was done through some

type of hospital policy, and we'll leave it at that.

BY MR. ROSMAN:

Q. Doctor, can you define EFE?

A. Endocardial fibroelastosis is a nonspecific alteration in the endocardium of the left ventricle, in particular, which is a response to tension increase in the wall of the ventricle. It develops with, in particular, severity in younger hearts and to much less degree as one's heart gets older.

Q. When you say it is a nonspecific response, what do you mean?

A. It is etiologically nonspecific. It's related to the pathophysiologic phenomenon I mentioned which is tension increase in the endocardium.

Q. So, in other words, what you're saying in laymen's terms is that the cause of this can be varied?

A. Yes.

Q. And I take it that what you're also saying that those causes which increase the tension in the endocardial layer can cause EFE?

A. Yes. Phenomenon that occurs more readily in younger patients than in older ones with the exception of the endocardial fibroelastosis that develops over myocardial infarcts, that can develop in a florid degree in the adult.

Q. Are you relying on Dr. Chin's report in any fashion?

A. I do not believe that I have Dr. Chin's report. Who is Dr. Chin?

Q. Dr. Chin is the other expert for Plaintiff.

A. I have not seen his report.

Q. And, Doctor, are you relying on the pathology reports from University Hospitals in making your comments and opinions?

A. I have reviewed the records that were supplied to me which includes the pathology reports and in the context of my own review of the slides

from the case.
Q. Do you agree with the findings in any of the University Hospital's pathology reports?
A. I didn't go through those from the point of view of agreement or disagreement. I read the descriptions, factual descriptions. Did not pay that much attention to their interpretations, to tell you the truth.
Q. Doctor, do you disagree that there was subaortic stenosis here?
A. Yes.
Q. Did you agree with Dr. Redline's finding in the final diagnosis and gross summary that this subaortic stenosis was mild to moderate?
A. It wasn't measured, so it's difficult to know for sure, having not seen the heart myself. Obviously, it was sufficiently severe to be regarded as something. It required a valvuloplasty type procedure by the clinical folks that were taking care of the child.
Q. Well, Doctor, are you saying that you

disagree with Dr. Redline's finding that the subaortic stenosis was mild to moderate?
A. I can neither agree with it, nor disagree with it. I have not seen it myself. There is no photograph of the heart and the heart doesn't apparently exist anymore, so we're dependent on what we have in the way of descriptions here. And as I already stated, there was no measurement of the diameter of this as seen in the resected heart.
Q. Doctor, would you agree that a pathologist who was looking and working on an extracted heart was part of the -- this is an extracted heart of a neonate -- that that doctor is part of the overall care team, along with neonatologists and pediatric cardiologists for that neonate?
A. In the broader concept of the care team, I suppose that's true.
Q. Doctor, can you define primary EFE?
A. I have no idea what you mean by primary EFE. There is no such thing. As I said before,

endocardial fibroelastosis is a nonspecific response to a pathophysiologic alteration in the ventricle.
Q. Doctor, can EFE be congenital?
A. Yes.
Q. What would be the causes of congenital EFE?
A. Far and away, the most common cause of congenital EFE is aortic atresia.
Q. Okay. What is aortic atresia?
A. It's a closure of the leaflets of the aortic valve so that blood flow through the aortic valve stops.
Q. Okay. That wasn't present here, was it?
A. No.
Q. Doctor, if any of the other heart valves are affected, does one see EFE? Let me restate that question for you.
Let's say there's a problem with the mitral valve. Does that have a tendency to cause or create EFE in the heart?

A. Yes.
Q. And where would that EFE be located?
A. In the left ventricle.
Q. What if there was a problem with the tricuspid valve, would that cause EFE?
A. In my view, most probably not.
Q. What if there was a problem with the pulmonary valve, would that cause EFE?
A. Again, most probably not.
Q. Of the cases that you see that involve EFE, what percentage of those cases involve EFE that is only located in the left ventricle?
A. The vast majority of endocardial fibroelastosis occurs in the left ventricle, excluding the normal endocardial fibroelastotic nature of the left atrium.
Q. Doctor, have you ever personally seen a case where endocardial fibroelastosis is heart wide?
A. I don't believe that occurs personally.
Q. I'm going to reask you that question just

so we -- because it's a very specific question.
Have you personally ever seen a case where EFE was heart wide?
A. We need to make a distinction here between what is the normal situation in the endocardium of the left atrium which I already mentioned and also to a much lesser extent, the endocardium of the right atrium. Endocardial fibroelastosis is a pathologic process, for all practical purposes, is confined to the left ventricle.
Q. Okay. Doctor, I don't believe you've answered my question yet.
A. Well, we need to clarify what you're talking about when you use the term EFE because the morphology of the left atrial endocardium closely resembles the morphology of endocardial fibroelastosis of the left ventricle as a pathologic process.
Q. Have you seen a case where endocardial fibroelastosis was disbursed evenly throughout the

heart, including the right ventricle and right atrium?
A. No.
Q. Have you heard of such a case?
A. No.
Q. If you did see a case where endocardial fibroelastosis was disbursed fairly evenly throughout all four chambers of the heart, would you be able to diagnose that case?
A. In the incredibly improbable circumstance that you could produce such a case, the answer is yes.
Q. And what would be your diagnosis?
A. Well, I mean, you know, the question you answered -- the answer -- asked, answered that question.
Q. Well, Doctor, your answer to me was that it would be incredibly unusual, I may not be using your exact words, to have a case where EFE was spread evenly throughout all four chambers of the heart.

You didn't say it was impossible, though, you said it was incredibly?
A. Improbable is what I said.
Q. Improbable. If such a case occurred, you said you could diagnose it, and I'm wondering what your diagnosis would be.
A. Obviously, it would be what you just described, endocardial fibroelastosis uniformly distributed throughout all four chambers of the heart.
Q. Okay. And with that diagnosis, would you have any opinion as to what caused that?
A. It would have to be looked at in the context of the case and try to arrive at some interpretation of it.
Q. Doctor, in the context of this case, if there was dispersion of EFE throughout all four chambers of this heart, what would be your opinion as to the cause of that EFE?
A. The issue doesn't come up in this case. There's not EFE disbursed throughout all four

chambers of the heart. It's not there on the slides.
I want to make it clear that when I am using the term EFE, I'm referring to pathologic conditions, to not have to keep repeating that a similar morphologic change is a normal feature of the left atrium.
Q. Doctor, which slides tell you that it was not disbursed throughout the heart?
A. The slide of the right ventricle is the key slide.
Q. And do you know which one?
A. I'm looking. I'm looking. It is S9414657D as in dog.
Q. Is that B or D?
A. D as in dog.
Q. Delta. Is that the slide that's normally referred to as D slide?
A. D. It is subidentified as D under S9414657.
Q. And handing you what has been labeled

Exhibit, 3 have you seen Exhibit 3?
A. Yes.
Q. Okay. This is the surgical pathology report from University Hospitals?
A. Correct.
Q. And you've seen this?
A. Yes, I have.
Q. And the slide you're referring to is the slide referred to as D, that's delta, on that report; is that correct?
A. Yes.
Q. Okay. Thank you. Now, you're looking at now what is evidently a xerox of that slide; is that correct?
A. There is a xerox that I'm looking at which includes that slide, correct.
Q. Okay. Do you have any other photograph or blowup of that slide in your possession?
A. I do.
Q. And is that in one of your packets that we have?

A. It is. This is within Exhibit 4 and it is Number 14.
Q. If you could refer to the blowup that is Number 14. Doctor, looking at the blowup that corresponds to that slide, what is it about this blowup that tells you that EFE was not located in the right ventricle?
A. The endocardium is of normal thickness.
Q. Is there anything else that says anything to you concerning EFE in that Number 14 photograph?
A. Photograph demonstrates that endocardial fibroelastosis is not present in the right ventricle.
Q. Can you say the last three words that you said?
A. Not present in the right ventricle.
Q. And it's because the endocardium is of the normal thickness, correct?
A. Correct.
Q. Is there anything else in that photograph that says anything about EFE?

A. No.
Q. I would like you to look at the photograph that refers to slide C.
A. Slide C is a duplicate of slide B in the set of slides that I am looking at.
MR. AUCIELLO: Does that mean you don't have slide C or --
Q. Are you saying that slide C and D are the same slide?
A. Slide B and slide C have been cut from the same block.
Q. That's slide C, Charlie and D, delta?
A. No, B, bog.
Q. Okay. I'm not interested in B.
A. Well, you may not be interested in B, but the answer to your question relates to the fact that slides B and C have been cut from the same block.
Q. Okay. Does that mean that C and D basically give the same view to you of the right ventricle?

A. No. You're not listening.
Q. I'm sorry.
A. Slide B as in boy, C as in Charlie have been cut from the same block. They are from the left ventricle. They're not from the right ventricle. Slide D, delta, in your terminology, is from the right ventricle.
Q. Thank you.
Is there any other slide of the right ventricle?
A. No.
Q. Is there any slide of the right atrium?
A. My recollection is that D does not have atrium in it. That's my recollection. I can't tell from looking at my pictures.
Q. Okay. Doctor, how long does it take for EFE to affect a neonatal heart to such a degree that it needs to be transplanted?
A. The transplantation is not done because of endocardial fibroelastosis. Endocardial fibroelastosis is a consequence of whatever reason

the heart needs to be transplanted, that is the nature of the disease in that case.

Q. You would agree with me, or possibly not, tell me, that if EFE affects a heart, that EFE will cause that heart to have more trouble beating; is that correct?

A. That's an interesting question, and I'm not sure that anyone knows the answer to that. Endocardial fibroelastosis is a reaction to an abnormal pathophysiologic state and it is not clear that it impairs the function of the heart as opposed to actually improving it or bringing it more back towards normal than would be the usual circumstance.

Q. Doctor, have you ever seen EFE in a right ventricle?

A. I can't recall such a case -- oh, whoops. Yes, I have. Yes, I have. I have.

Q. Do you remember what --

A. Several times, as a matter of fact, I have seen such a phenomenon.

Q. Do you remember what your conclusions were concerning the cause of that EFE being in the right ventricle?

A. It was related to destruction of the right ventricular myocardium. The circumstances in which you see that sort of thing fits into the general category of what's called Uhl's syndrome, U-H-L-'s, and diverticula of the ventricle. These are very uncommon conditions and the underlying cause is unclear.

Q. Doctor, have you ever seen -- well, let me go back. You spoke of Uhl's syndrome.

What does that consist of?

A. A loss of right ventricular myocardium of unknown cause.

Q. Have you ever seen EFE in a right atrium?

A. There's a -- there's a relative normal thickening of the endocardium on the inner atrial septum. It's not of a degree of what one sees in the left atrium, but again we're talking normal here. I can't recall having seen EFE as an

abnormal process in the right atrium.

Q. If there is a flow induced tension to the heart caused by a subaortic stenosis, would you expect to see the EFE in such a case induced by such a flow problem in the left ventricle?

A. Your scenario again is what, subaortic obstruction?

Q. Yes.

A. I have not seen that.

Q. When you see subaortic stenosis, do you see a particular pattern of EFE created by that?

A. As I said, I have not seen that. I can't recall such a case.

Q. Is there such a thing as -- strike that.

Doctor, this case, would you agree, involves subaortic stenosis?

A. Yes.

Q. Okay. Do you agree or disagree that there was EFE caused by that stenosis?

A. It is not directly caused by the stenosis. The endocardial fibroelastosis in this

case is a consequence of the complications that arose from the therapeutic addressing of the subaortic stenosis.

Q. It is your opinion, in other words -- well, first of all, it is your opinion, I take it, that there was no heart wide four chambers dispersal of EFE, correct?

A. I think we've beaten that point into the ground, yes.

Q. Okay. I take it it is also your opinion that the EFE here was caused by the cardiac event which Baby Lyzen had experienced on August 24 of 1994?

A. Let me make sure we're on the same wavelength datewise here. Is that the date the procedure was done, he had a cardiac arrest?

Q. Yes. Or if I can clarify this --

MR. AUCIELLO: I think it's in your report.

Q. It's on your second page of your report.

A. Second page, thank you. I couldn't

believe I didn't have it in there. Yes. Yes. August 24, that's when his endocardial fibroelastosis was set in motion.

Q. So it's your opinion that the EFE that's present in Baby Lyzen's extracted heart was as a result of the would be heart attack that the baby experienced when he was undergoing valvuloplasty?

A. The infant has a profound degree of ischemic cardiomyopathy.

Q. Are you agreeing with me?

A. You want to ask the question again?

Q. Is it your opinion that the EFE that was present in Baby Lyzen's extracted heart was due to the cardiac event which the baby experienced on August 24, 1994?

A. Yes.

Q. And I take it that you're saying that the -- by the way, in laymen's terms, did the baby have a heart attack on that day?

A. He has a great deal of ischemic injury to his myocardium. If you want to use the lay term of

heart attack, that's fine with me. I personally do not think of it in those terms.

Q. Okay. What term would you use?

A. He's had a profound ischemic injury as a result of a cardiac arrest.

Q. And so were there two things caused as a result of that profound ischemic injury? Number one, EFE; and second, ischemia found in the heart?

A. The ischemia is a consequence of the -- pardon me. The EFE is a consequence of the ischemic cardiomyopathy.

Q. If someone has a profound ischemic injury, do you typically find EFE only in the left ventricle?

A. You want to rephrase that question a little bit?

Q. Well, if someone experiences a profound ischemic injury, would you agree that that is a heart wide development?

A. That's even less clear. Let me answer what I think you're trying to ask me. The type

of ischemic injury that occurs here in the circumstance of this sort tends to be in the subendocardial part of the heart. The ability of the patient to survive such an event is as a result of resuscitation, clinical management and that sort of thing.

The endocardial fibroelastosis evolves over the course of some weeks following that event in the case of myocardial infarct, for example, in an adult. And with your use of the term, profound ischemic insult, one thinks that such a person is not going to survive, so endocardial fibroelastosis is not going to be seen in the early stages of this type of effect. This is why I was questioning you about your question.

Q. If there is ischemic injury to the heart, that ischemic injury doesn't necessarily occur in the left ventricle, does it?

A. The left ventricle is typically that part of the heart that is most severely affected.

Q. If there's ischemic injury, can other

chambers of the heart be affected, other than the left ventricle?

A. Yes. It's not uncommon to see a right ventricular focal necroses or occasionally also in the atrium with really profound episodes of shock when the patient survives for a period of time.

Q. If that occurs, do you also see EFE in the other chambers?

A. Not as a rule, no.

Q. You're saying not as a rule. Does that mean there are situations where you would see EFE in the other chambers?

A. Well, I described one to you a little while ago in the Uhl's syndrome in which there's loss of myocardium, for whatever, ischemic injury being one of the postulates as to what may be going on there. So, yes, that can occur in that circumstance from ischemia if that indeed is what causes Uhl's syndrome.

Q. In this case, Doctor, with Baby Lyzen, was there ischemia located in chambers other than

the left ventricle?
A. For an answer -- which one is this? Yes. There is depicted on Number 16 of this exhibit which is 4, there is an area of ischemic injury in the left atrium.
Q. That's photograph Number 16 in Exhibit 4?
A. Yes.
Q. Okay. And can you point out for us here at the table where that's located?
A. (Indicating).
Q. Can I see that for a second?
A. (Handing).
Q. Handing you what's been labeled -- well, Photograph Number 16 of Exhibit 4, is the area that you've pointed to, the lighter area in the top near the top of the photo, a little bit to the right of center?
A. Yes, exactly.
Q. Thank you. I'll take my pathology boards tomorrow.
A. Just so there's no misunderstanding,

that's also shown in 15 which is a lower powered view that includes that same area.
Q. Could I see that, Doctor?
A. (Handing).
Q. And in Number 15 of Exhibit 4, where's the ischemia located?
A. That (indicating).
Q. Okay. Doctor, I would like you to refer to slide E. You have said that -- do you have that?
A. I do.
Q. You state in your report that slide E is consistent with flow induced tension, and I would like to know what you mean by that.
A. That is not what I said. I said one slide, E, shows endocardial thickening that is consistent with flow induced endocardial proliferation with overlying organizing thrombus in the area of subaortic stenosis.
Q. Okay. Thank you. What do you mean by that?

A. Well, you see endocardial proliferations that are flow induced. That is to say in areas of low shear, there will be proliferation of the endocardial issues. This is discussed in considerable detail in the paper Number 15 that I referred to you before from my bibliography.
Q. Do you have the blowup of slide E?
A. Yes. Numbers 2, 3, 4 and 5 all come from slide E.
Q. May I see those?
A. (Handing).
Q. E, okay. Two, 3, 4 and 5?
A. Yes.
Q. And these are slides taken of the subaortic region?
A. They're taken from slide E which is purported to come from the region of subaortic stenosis.
Q. And showing you what's been labeled slides 2, 3, 4 and 5 of Exhibit 4, can you point out to me the endocardial thickening that is

consistent with flow induced endocardial proliferation?
A. It's well seen in 3 towards the -- slightly to the right of center. And under higher power, in 4, as a lamina of proliferated tissue. All this stuff (indicating).
Q. Okay. Let's go back to 3. Where do you see the endocardial thickening that we've been talking about?
A. It's this stuff that has slightly different color that extends through this area here (indicating).
Q. Okay. That is a little bit to the right and above the center of this picture. Would you agree?
A. It's -- yeah. Part of it is somewhat above center, yes, and it's a little bit to the right.
Q. Okay. And is that a little bit darker in color than the rest of the photo?
A. It's a bit darker than the tissues that

are to the left of it.
Q. And it's directly above this little dark blotch?
A. Yes. A blood vessel.
Q. Okay. And Number 4 is a blowup of that?
A. Yes.
Q. When you say something is consistent, do you mean that it is a possible result, but not the definite result of something?
A. Not really. It means that far and away, more probably than not, that is the explanation of it, but that one would concede that there may conceivably be other explanations.
Q. Doctor, what are the major diseases that cause EFE?
A. Probably the commonest thing is cardiomyopathy.
Q. Any others?
A. You can see it, as we discussed before, with left heart syndrome.
Q. I take it that it is your opinion in this

case --
A. And if I could just extend that, I also mention myocardial infarction as a relatively common of localized EFE.
Q. Doctor, I take it that it is your opinion in this case that the EFE that you see here is only located in the left ventricle, correct?
A. Yes. That same qualifier in terms of the left atrium. You understand this, right? You've never agreed that you understand this. So you want me to say it every time or what?
Q. No, no, that's all right.
A. Are you agreeing that the comparable morphology is seen normally in the left atrial endocardium?
Q. I don't know if I'm agreeing to that, but I understand that you're saying that.
A. Can we agree that we're going to use the term EFE only for the pathologic change?
Q. Yes.
A. All right, fair enough.

Q. If a valvuloplasty is performed on a neonate and that heart has been extracted, would you expect to see any signs of the valvuloplasty on the extracted heart?
A. It could be very difficult to recognize in a pathologic specimen, and that's just not neonates. Valvuloplasty changes are actually difficult to appreciate many times.
I have a paper on valvuloplasty pathology too. I forgot to write that one down.
Q. Could you tell us which one that is?
A. Not off the top of my head.
Q. Is it in your CV?
A. Yes. Bibliography.
Q. Doctor, this might be important. If you could point out that article to us.
A. Your colleagues are going to get annoyed if I take the time to find this thing. All right. Why don't you go ahead? I'll just be looking while you're talking.
Q. Well, have you in your practice ever seen

signs of a valvuloplasty done on an aortic valve?
A. Yes.
Q. Okay. What kind of signs do you see?
A. Well, the one that particularly comes to mind was done in a patient with calcific aortic stenosis. And in that case, there had been cracking of some of the calcific materials in the sinus of Valsalva.
Q. Have you ever seen in such a situation, that is, where a valvuloplasty is done on an aortic valve, have you ever seen signs of tearing of the aortic valve?
A. Yeah. We looked at a whole bunch of aortic valves that were obtained from autopsy patients.
And, in fact, that's the paper I'm looking for because that study was done and had all kinds of injuries from the different types of injuries and some of the valves, including tearing of the leaflet.
Q. Doctor, can an infectious process cause

EFE?
A. Yes. Viral myocarditis being a particularly common cause of that sort of thing.
Q. Could you agree that the pathologic changes that result when EFE occurs are similar, regardless of the cause of EFE?
A. Yes. It's a nonspecific pathologic reaction to pathophysiologic state.
Q. Doctor-- oh, I'm sorry?
A. 301.
Q. Number 301. Thank you.
Doctor, do you have any opinion as to the standard of care delivered by any of the physicians in this case?
A. I do not address standard of care questions being a pathologist.
MR. ROSMAN: Doctor, I don't think I have any further questions at this point.
MR. AUCIELLO: Doctor, I just have -- I'm Ernie Auciello, I represent Dr. Patel and Dr. Zahka.

MR. BECKER: Ernie, can you move a little bit closer to that speaker phone?
MR. AUCIELLO: I didn't have a mike, I'm sorry.
EXAMINATION BY MR. AUCIELLO:
Q. Doctor, directing your attention to the surgical pathology report done on the heart, I believe you have it in front of you. I don't remember what exhibit it is, though.
A. Yes.
Q. And if I recall your testimony, you said you can't determine whether the stenosis was mild to moderate without seeing it, the subaortic stenosis?
A. Right.
Q. Okay.
A. The subaortic area was not measured by the descriptions here and he asked a matter of mild to moderate, apparently was based on looking at it and they did not photograph it and we don't have the specimen, so.

Q. And I understand that answer. Is there anything in your other findings, though, that leads you to question that?
A. To question that there's subaortic stenosis?
Q. To question whether it was mild to moderate?
A. I can't address it one way or the other. I have no reason to dispute that statement based on what I've seen.
Q. Okay. Now, in that surgical pathology report, right in the middle of the note on the second page, Dr. Redline writes: The myocardial changes are out of proportion to the degree of aortic stenosis which was mild/moderate at best.
A. I'm sorry, I had seen that. I have misstated what I said before, they did in fact measure that. I was reading down here that they would have measured the aortic valve. They did in fact measure the site of stenosis.
Q. Okay. So what --

A. So I would agree with the mild to moderate.
Q. You would agree with the mild to moderate?
A. Yes.
Q. Would you agree that the myocardial changes are out of proportion to that degree of aortic stenosis?
A. The myocardial changes as seen in the heart, yes, they are the consequence of the injury resulting from the arrest.
MR. AUCIELLO: Okay. That's the only question I have.
MR. ROSMAN: Any questions from Philadelphia?
MR. CULLEN: Doctor, my name is John Cullen. I just have a few questions.
EXAMINATION BY MR. CULLEN:
Q. Can you hear me?
A. Yes.
Q. Okay. I'm looking at your report, I'm on

Page 2, the last paragraph where it begins in summary.
A. Yes.
Q. And it says: Thomas Lyzen had subaortic outflow tract obstruction of the left ventricle and that this congenital malformation was his underlying cardiac problem. Right?
A. Correct.
Q. Do you have any opinions on what the treatment should have been for this congenital malformation?
A. No. That's a clinical determination.
Q. Okay. I understand you've got a copy of Dr. Redline's deposition with you.
A. Yes, I do.
Q. Have you read it?
A. Yes, I read through it.
Q. Do you disagree with any of his opinions?
MR. BECKER: I object.
Q. Well, Doctor, does he point out in his deposition that he found EFE in the right

ventricle?
A. Yes, I noted that statement.
Q. I'm assuming you disagree with that?
A. It's not shown on the slide of right ventricle that I have to look at.
Q. Okay. Do you know if that was the slide he was looking at or --
A. I'm not sure if these are original slides that I have or whether they're recuts.
Q. Would the original slides be of more help to you? Would they be better quality? Would they --
A. I can't answer that. As I said, I don't know whether these are the original slides or not.
Q. All right. So it's not that you disagree with Dr. Redline, it's that you don't know if he was looking at the same things you were looking at; is that fair?
A. That's correct, I do not know.
Q. Is there anything else you remember from his deposition that you disagree with?

A. I think we perhaps have a different concept of endocardial fibroelastosis.
Q. I think so. I had a whole slew of questions on the difference between primary and secondary, and I think what I'm hearing you say is that you don't believe there is a primary EFE or an entity called primary EFE; is that right?
A. It is my opinion that there is a widespread misconception that there is an entity of primary endocardial fibroelastosis. I have the personal belief that in all instances, the endocardial fibroelastosis is secondary to some other pathologic process.
Q. So there's a misconception out there, right?
A. That is my opinion.
Q. I think I'm reading all the materials from this misconception then.
Was this misconception present in 1994?
A. It still exists.
MR. CULLEN: Okay. Thank you. That's

all I have.
THE WITNESS: You're welcome.
MR. MOSCARINO: Doctor, my name is George Moscarino, I'm an attorney for the hospital. I just have a few questions for you.
EXAMINATION BY MR. MOSCARINO:
Q. This misconception that you told Mr. Cullen about, is that a minority position that you hold?
A. Is the opinion that there is no primary EFE a minority opinion?
Q. Yes.
A. I can't answer that. I don't know.
Q. Well, if you know, and if you don't, fine, if we polled 100, if there are 100 pathologists like yourself, specialized in pediatrics and in cardiology, would more than 50 of them believe that there's no such thing as primary EFE?
A. I can't answer that. I really don't know. If you ask the question about clinicians, I

can tell you that the majority of them seem to believe that there is such an entity. I don't know about pathologists.

Q. Well, are you saying that the misconception on whether there's such a thing as primary EFE is a misconception that's held by cardiologists or pathologists or both?

A. I'm sure, obviously from Dr. Redline's deposition, there are pathologists that hold that opinion.

Q. And all I'm trying to figure out is your comment to Mr. Cullen who preceded me here, is that directed towards clinicians or pathologists or both?

A. Both.

Q. And as a pathologist, are you qualified to comment on whether a clinician has a misconception in their diagnosis of EFE?

A. Yes.

Q. Are the cardiologists also qualified then in your mind to talk about and opine about the

pathology?

A. Well, I'm sure they can opine about it, but whether they opine accurately or not is another matter.

Q. Is EFE a pathological diagnosis only?

A. I don't see how you can make the diagnosis otherwise.

Q. Is that by slide only?

A. It's not only by slide only, but it requires an elastic stain to be certain that that's what you're looking at.

Q. It requires what, a stain?

A. An elastic stain is needed if there is question about what you're looking at.

Q. And can two pathologists of the same qualifications and experience differ over whether a slide shows evidence of EFE?

A. I would hope they wouldn't.

Q. And I'm not trying to ask a goofy question. What I'm trying to figure out is do you and Dr. Redline differ over the exact same piece of

medical evidence or are you looking at two different cuts of the same slide? Or do you not know?

A. I can't tell. I mean, normally if you get recut slides, they're marked as such. That is not the case with the ones that I reviewed. So I do not know if these are original slides or recuts.

Q. If you were shown another slide of the right ventricle which showed EFE, would that change your opinions at all?

A. Not in regard to the interpretation of this case.

Q. Why not?

A. Because the pathology of the case is very clear cut, as I've described it in my report here.

Q. Is John Hopkins a teaching institution?

A. Yes. Johns Hopkins. It starts there with teaching.

MR. ROSMAN: Thank you, Doctor. As an alumnus, I'm glad you made that correction.

Q. So you work with residents and fellows?

A. Yes.

Q. And the residents and the fellows both in pathology, cardiology and other disciplines are physicians in training?

A. Yes.

Q. And I assume that you teach them and direct them and control them in their activities?

A. I'm not sure how much control I have, but the other two things are correct.

Q. And when they present a diagnosis to you, you then have the authority as the attending physician either to accept that or to change it?

A. In cases on which I'm the attending, that is correct.

Q. And is that the same with respect to cardiology?

A. No. My role in cardiology is not that of an attending.

Q. No, but is the line of hierarchy with respect to the attendings at your institution the same, as far as the attending physicians having the

right and ability to change diagnoses that the residents and fellows set forth?
A. I can't speak with any personal knowledge about what goes on in cardiology, but I would assume that would be the case.
Q. Did you read the report of a Dr. Novak?
A. Novak, that name is not familiar to me. Is that an expert report or part of the record?
Q. My understanding is he's an expert pathologist identified by one of the other Defendants.
A. No, I have not seen that.
Q. He's from Children's Hospital in Acron, Ohio.
A. No, I have not seen his report.
Q. Are you familiar with a Dr. Robert W. Novak from Acron, Ohio?
A. No, I do not know him.
Q. His summary is as follows: He says: Number one, I conclude that the aortic outflow obstruction is of only modest severity at all

times.
Do you agree with that?
A. That may well be the case, I don't know.
MR. MOSCARINO: Okay. That's all I have. Thank you.
THE WITNESS: You're welcome.
MR. ROSMAN: Any further questions in Philadelphia?
MR. MOSCARINO: No, just to restate my earlier comment that I need to take a look at these blowups and the other exhibits to the deposition before making a decision regarding redeposing the doctor. I was concerned at a certain point in time, I felt that I was at a disadvantage not being able to look at the blowups of certain slides that we were talking about with respect to the EFE. And, in particular, the one slide that Dr. Hutchins was saying of the right ventricle that did not show any EFE. Thank you.
MR. CULLEN: That was George Moscarino, I'm John Cullen. I just join in what he said.

MR. ROSMAN: I don't have any further questions.
MR. AUCIELLO: I've got one follow-up about the primary EFE view that you hold.
EXAMINATION BY MR. AUCIELLO:
Q. Were you of this view in 1994, or do you know when you came to see the light, so to speak, that there was no such thing as primary EFE?
A. My interest in endocardial fibroelastosis extends back a number of years. The papers I referred to before were written or published back in 1971 or '72, so.
Q. So if we had asked you in 1994 if there's such a thing as primary EFE, your answer would be the same as it is today?
A. Correct.
MR. AUCIELLO: I have no further questions.
MR. ROSMAN: I will make arrangements somehow with the doctor to somehow get color copies of these photographs.

THE WITNESS: Yes. I can provide those through our photography lab, if that's your desire.
MR. ROSMAN: Okay. That would be fine.
MR. BECKER: Let the record reflect that, Doctor, I recommend that you read the deposition that's going to be ordered, rather than waiving signature. Would you so indicate to the court reporter since I'm not familiar with the court reporter?
(Whereupon, at 1:05 p.m., the deposition was suspended.)

STATE OF MARYLAND

SS:

I, Stephanie House, a Notary Public of the State of Maryland, do hereby certify that the within named GROVER HUTCHINS, M.D., personally appeared before me at the time and place herein set out, and after having been duly sworn by me, was examined by counsel.

I further certify that the examination was recorded stenographically by me and this transcript is a true record of the proceedings.

I further certify that I am not of counsel to any of the parties, nor an employee of counsel, nor related to any of the parties, nor in any way interested in the outcome of this action.

As witness my hand and notarial seal this 23rd day of December, 1999.

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Stephanie House, Notary Public

My commission expires June 1, 2003.

I N D E X

DEPOSITION OF GROVER M. HUTCHINS, M.D.

DECEMBER 15, 1999

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DATE: December 28, 1999
JOB NUMBER: SB21548H
CASE CAPTION: Lyzen vs. Patel, M.D., et al
COURT: Court of Common Pleas, Cuyahoga County, Ohio
CASE NUMBER: 307715
DEPONENT: GROVER M. HUTCHINS, M.D.
DATE OF DEPOSITION: December 15, 1999
ATTORNEYS/FIRMS:
MICHAEL BECKER, ESQUIRE / Becker & Mishkind
ERNEST W. AUCIELLO, JR., ESQUIRE / Gallagher, Sharp, Fulton & Norman
WARREN ROSMAN, ESQUIRE / Weston, Hurd, Fallon, Paisley & Howley, L.L.P.
GEORGE MOSCARINO, ESQUIRE (By telephone) / Mascarino & Treu
JOHN L. CULLEN, ESQUIRE (By telephone) / Mazanec, Raskin & Ryder, L.P.A.

Dear Sir or Madam:

Bound herewith is the transcript of the above-referenced deposition, including the original certificate page and notary page. Please read the transcript and sign the certificate page before a notary public for authentication of your signature. Any additions or corrections should be listed on the errata sheet provided. Please remove the signed certificate, notary pages, and the completed errata sheets, and return them to the address listed above for processing.

If this process has not been completed within (30) thirty days from the date of this letter, we will assume that the right to read the deposition has been waived. This is in accordance with Rule 30(e) of the Federal Rules of Civil Procedure and Rule 411 Section (a) of the Maryland Rules of Procedure.

READING & SIGNING PROCEDURE

The Deposition of GROVER M. HUTCHINS, M.D., taken in the matter, on the date, and at the time and place set out on the title page hereof.

It was requested that the deposition be taken by the reporter and that same be reduced to typewritten form.

It was agreed by and between counsel and the parties that the Deponent will read and sign the transcript of said deposition.

CERTIFICATE

STATE OF _____:

COUNTY/CITY OF _____:

Before me, this day, personally appeared GROVER M. HUTCHINS, M.D., who, being duly sworn, states that the foregoing transcript of his/her Deposition, taken in the matter, on the date, and at the time and place set out on the title page hereof, constitutes a true and accurate transcript of said deposition.

_____

GROVER M. HUTCHINS, M.D.

SUBSCRIBED and SWORN to before me this _____ day of _____, _____ in the jurisdiction aforesaid.

_____ _____

My Commission Expires Notary Public

DEPOSITION ERRATA SHEET

RE: Al Betz & Associates, Inc.

FILE NO.: SH21548H

CASE CAPTION: Lyzen, et al vs. Patel, M.D., et al.

DEPONENT: Grover M. Hutchins, M.D.

DEPOSITION DATE: December 15, 1999

I have read the entire transcript of my Deposition taken in the captioned matter or the same has been read to me. I request that the changes noted on the following errata sheet be entered upon the record for the reasons indicated. I have signed my name to the Errata Sheet and the appropriate Certificate and authorize you to attach both to the original transcript.

PAGE/LINE CHANGE REASON

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SIGNATURE: _____ DATE: _____

Grover M. Hutchins, M.D.

PAGE/LINE CHANGE REASON

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SIGNATURE: _____ DATE: _____

Grover M. Hutchins, M.D.