In The Matter Of:

Virginia DeJean, Etc. v.
Praveen Giri, M.D., et al

James Toole, M.D.
Vol. 1, October 18, 1999

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IN THE COURT OF COMMON PLEAS
MARION COUNTY, OHIO
Virginia DeJean, Etc.,)
Plaintiff,)
V.) Case No. 98 CV 0248
Praveen Giri, M.D., et al,)
Defendants,)
Deposition of JAMES TOOLE, M.D.
Held at Wake Forest University School of Medicine
Winston-Salem, North Carolina
Monday, October 18, 1999
1:04 P.M.
Volume 1 of 1
Pages 1 through 82

APPEARANCES
For the Plaintiff Wean:
Gary Cowan, Esquire
Garson & Associates Co.
1600 Rockefeller Building
614 Superior Avenue NW
Cleveland, Ohio 44113
For the Defendants GM, M.D., et al:
Mark D. Frasure, Esquire
Buckingham, Doolittle & Burroughs
4518 Fulton Drive NW
Post Office Box 35548
Canton, Ohio 44735-5548

TABLE OF COMENTS

EXHIBITS

Number Description Marked
No exhibits

PROCEEDINGS 1:04 P.M.
(Whereupon,
James Toole, M.D.
was called as a witness, duly sworn. and testified as
follows:)
DIRECT EXAMINATION 1:04 P.M.
By Mr. Cowan:
Q: Let the record reflect that we're taking the deposition of Dr. James Toole per notice and agreement of counsel. Dr. Toole is an expert for the defense in the case captioned Virginia DeJean, Etc. versus Praveen Giri, M.D., et al, case number 98 CV 0248 that is presently pending in the Marion County Court of Common Pleas. Doctor, can I assume that you've had your deposition taken before?
A: YOU may.
Q: Let me give you a couple of the ground rules since you've probably done this many times. You're under oath today and you must answer the questions truthfully and to the best of your knowledge; is that fair?
A: That's fair.
Q: If you don't understand a question, please stop me and I can rephrase it. Is that fair?
A: Thank you.

Page 5

Q: In answering the question, I will presume that you understood the question that I was asking; is

Q: If you could state your full name?
A: James Francis Tooie.
Q: And, Doctor, where do you presently reside?
A: In Winston-Salem, North Carolina at 1836

Page 8

a year.

practice?

Ithaca, New York at Cornell?
A: No, that was in New York City on East 68th Street, the New York Hospital. The medical school is in the city.
Q: Oh, it is? Okay, is it still today?

Q: Doctor, are you presently on the board of any medical journals?
A: I'm on the board of Stroke and Cerebral Vascular Disease.
Mr. Frasure: Is that one or two?

Page 6

A: Yes, they don't have patients — well, at that time Ithaca if I understand this story was small and New York City was big so if you wanted to see a lot of sick people you would go to New York City.
Q: And you did your internship at —
A: The University of Pennsylvania.
Q: And your residency at the University of Pennsylvania?
A: That's correct.
Q: And you received a Fulbright scholarship in neurology in years 1955 through 1956?
A: That's true.
Q: So I gather you went to England then?
A: I did.
Q: Doctor, what specialties are you board certified in?
A: Internal medicine and neurology.
Q: And can you recall what years you became board certified?
A: 1958 in internal medicine, 1961 in neurology.
Q: Do you have to become recertified in those areas?
A: In medicine at the time I took it, no; after a certain year they changed the rules and the answer would be yes, but the answer for me is no. I was

Page 9

Mr. Co

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could tell you.

By Mr. Cowan:

Q: Would they all be listed in the CV?
A: Everything is in my CV.
Q: Have you printed any textbooks in the last ten years?
A: Of course; excuse me. Theoretically this is a CV that is updated. Let me see the upper left-hand corner, if it doesn't have a date on it — here, it was revised October '99, within the past month.
Q: And which textbooks have you authored within the last five years?
A: Well, the fifth addition of my book Cerebral

Page 7

grandfathered in both.
Q: And, Doctor, are you presently on the staffs of any hospitals?
A: I'm on the staff of the North Carolina Baptist Hospital and the Forsyth Memorial Hospital.
Q: And, Doctor, what are your present appointments at Wake Forest University?
A: I'm professor of neurology and director of the stroke research center.
Q: And, Doctor, do you presently teach at the medical school at Wake Forest?
A: Ido.
Q: And what subjects do you teach?
A: Neurology and most precisely stroke.
Q: And, Doctor, I see you're a professor also at Wake Forest in Neurology, Epidemiology and Public Health Sciences, is that fair?
A: I believe that's at the University of North Carolina in Chapel Hill.
Q: Oh, and how often do you teach at that school?
A: They come here two or three times a year. I do a seminar now and then.
Q: I also saw your CV that you're a visiting lecturer in Law and Forensic Medicine since 1987. What

Page 10

Vascular Disorder and Eve years would take us back to '93 or '94.
Q: What about the Handbook of Clinical —
A: That's '87. That's a three volume set. Whether it's been republished, I don't know. It's part of a major group of books. My editorship of that was in the year of 1987, '88 and I don't think it's been reprinted, but I won't swear to that.
Q: Now the Cerebral Vascular Disease, that's in its fifth edition?
A: Right.
Q: Is that used at any medical schools?
A: I have no way to know that. It is not specifically — I don't know the answer.
Q: Do they use it at Wake Forest at the medical school?
A: I use it. I had my students use it.
Q: Doctor, have you written any articles on the use of anticoagulants for the treatment of acute ostemic stroke?
A: I have.
Q: And I know you've written a lot of articles. How many articles have you written just on that topic?
A: I have no way to count.

Page 11

handed me?
A: Yes.
Q: Have you written an article on the use of anticoagulants for the treatment of acute systemic stroke within the last three or four years?
A: Well, that would be my textbook which I've updated to the year 1999.
Q: That's the Cerebral Vascular Disease?
A: Yes.
Q: And, Doctor, in that textbook are there chapters that deal with TIA's, the treatment and management of TIA's?
A: Yes, there are.
Q: Is there a chapter on cerebral infarctions?
A: Yes.
Q: Is there a chapter, also, on cardiac embolisms?
A: There is.
Q: Doctor, have you ever been named as a defendant in a medical malpractice lawsuit?
Mr. Frasure: Objection but you may answer.
The Witness: Yes.
By Mr. Cowan:
Q: How many times?
A: Once.

Page 12

Q: And how long ago was that?
A: Mid 1970's.
Q: And in a nutshell, what type of case was it? What were the plaintiffs claiming in that case?
A: They were claiming conspiracy. A group of physicians in this institution conspired not to tell her the truth about a hairline fracture in her back that another physician found and that we were doing that in order to prevent her from collecting disability.
Q: Were you a consultant in that case?
A: I was.
Q: I gather the case was probably thrown out on —
A: It went all the way to the Court of Appeals and then North Carolina Supreme Court.
Q: And what was the outcome?
A: The young lady defended her own case and got it all the way to the top and it was thrown out.
Q: Doctor —
A: She pled her own case.
Q: Without a lawyer?
A: Without a lawyer.
Q: Did she win at the trial level?
A: Yes, they split. It was a curious case if

Page 13

you'd like to hear it. The jury hung the Erst time. The — it was retried and didn't reach — so she took it to the Court of Appeals. The Court of Appeals split; therefore, it went to the Supreme Court and she was getting her day in court more than she was getting something else.
Q: She didn't have to pay an attorney either.
A: I think so, maybe. I don't know.
Q: Doctor, do you review medical negligence cases as an expert witness?
A: If they're within my area of expertise, yes.
Q: And do you advertise your service in any journals?
A: No.
Q: Have you ever been listed as a reviewer or expert €or any expert service to review medical-legal cases?
A: For about two years an outfit in Philadelphia, it was said to be jointly operated by physicians and attorneys to settle malpractice cases out of court but might have been a sham for all I know. But I was listed for about two years and have never been since.
Q: What years would that have been?
A: I'd say early '80's.

Page 14

Q: How many times a year on average are you requested and or retained to be a medical expert in cases involving medical malpractice?
A: Well, that's changing over time. There was a time when I never had any and in the early '70's some were sent up from Florida and mow in the mid '90's, it may be as many as one a month to review but not specifically render an opinion. In other words, I'm willing to look at people's summaries or brief summations of records to see if I have skills that relate to the problem.
Q: So you may get requests once a month and how often — let's say going into 1998 and 1999, how many cases per year are you actually retained as an expert?
A: I would think maybe six or seven.
Q: Would it be fair to say that the majority of the cases that you review are on behalf of physicians that are named as defendants?
A: No, if anything, I'm asked to review more of thereverse.
Q: Do you know percentage-wise based on looking back over the fast five years?
A: Within the past year — I had my secretary look it up and she said it's sixty/forty, more for the defendant physician group than for the plaintiff.

Page 15

Mr. Frasure: Sixty/forty for the defendant or the plaintiff?
The Witness: The defendant, €or the doctor; that's not a bias on my part. That's the way it breaks.
Mr. Cowan: That's the way the cases came in.
Mr. Frasure: In the last year he said.
By Mr. Cowan:
Q: Doctor, have you reviewed cases on behalf of doctors who have retained the law firm of Buckingham Doolittle?
A: Do you mean this group?
Q: Yes.
A: Mr. Banas and I have worked together once, twice, previously, yes.
Q: How many times have you had cases where Mr. Banas's law firm had retained you?
A: As best I can recall is twice before this one.
Q: Can you recall what years?
A: No, I can't.
Q: Would they have been in the last — in the 1990's? Would that be safe to say?
A: Well, whether it's late '80's or early '90's,

Page 16

I can't split the difference, but that's what it was.
Q: Can you recall what type of cases? Were they stroke cases?
A: No, I can't.
Q: Have you ever been retained by Mr. Frasure to be an expert on a case?
A: He suggested I have not. I don't remember.
Q: You don't recall; any other attorney at Buckingham Doolittle than Gary Banas?
A: How many other names are on there! I don't how.
Mr. Frasure: Lee Bell, Jeff Schoburt —
The Witness: None of those names mean anything to me, so I don't know. Those people I can be reasonably certain I've never been.
By Mr. Cowan:
Q: How many times a year do you have your deposition taken as an expert? I'm just asking €or an average.
A: Six, seven.
Q: Have you ever testified live at a medical malpractice trial?
A: Several times, yes.
Q: Have you also testified by a videotaped deposition?

Page 17

A: Yes.
Q: The cases that actually go to trial, can you recall if that was primarily for the defense of a doctor or for — as an expert for the plaintiff?
Mr. Frasure: Those he's testified live at trial?
Mr. Cowan: Yes, correct.
The Witness: The most recent one was for the plaintiff in Georgia.
By Mr. Cowan:
Q: And how long ago was that?
A: Better part of eight months.
Q: And if you just briefly explain what the fact pattern in that case was?
A: Seemed to have been a lack of diagnosis of systemic attacks and a diagnosis of seizure disorder was made and the doctor was being sued by his patient who then had a stroke.
Q: And on that you were retained by the plaintiffs law firm?
A: I was.
Q: Do you recall the name of the law firm?
A: Kellogg and something.
Q: And where are they located?
A: Atlanta, Georgia.

Page 18

Q: Do you remember — do you actually — can you recall the name of the attorney from Kellogg's office?
A: No.
Q: Doctor, what is your rate for videotape testimony for trial?
A: It doesn't change, the $600 per hour during the week and double that during the weekends.
Q: And what is your rate if you have to fly into a place for live testimony?
A: Same rate, but I start the clock at the moment I leave the town until I get back except for eight hours of sleep at night.
Q: A rough guess, if you have to fly into Columbus, Ohio in the morning and back by the end of the day, would that be around $3,000 or $4,000?
A: Well the day began at 6:00 in the morning and ended at 6:00 at night that would be twelve hours times $600.
Q: Doctor, do you know any of the defendants; this Dr. Giri or Dr. Thompson personally?
A: No, I don't.
Q: Doctor, do you know Dr. Jeff Gelbloom who is the plaintiff's expert neurologist in this case?
A: No, I don't.
Q: Doctor, what percentage of your income is

Page 19

derived from being an expert witness?
A: I've never added it up, but if last year was typical, it would be about one-sixth, something like that, not as much as a quarter working backwards.
Q: So you think about one-sixth of your income may be derived from being an expert witness?
A: Possibly.
Q: Let's go on to — moving along to this particular case; how were you first contacted in this case about being an expert witness?
A: I received — my kind of guess is I received a call from Mr. Banas who I have not heard of in many years — heard from, that is, and said would I be willing to review records, I said — please send me a summary and I'll tell you if it falls within the scope of what I think I know about.
Q: So he sent you a summary and the records that he had at that time?
A: No, just the summary.
Q: Okay, and after reading the summary, he would have to enter into some sort of retainer agreement with you?
A: I don't have retainers. We charge by the hour, Should I have retainers?
Q: I don't know. I've seen them, but I think

Page 20

the way you're doing it is better. What records did you receive — I know there are some records you just recently received which was the family doctor. When you did the drafting of your report, what records did you have at that time?
A: At that time it came in piece mill, so it's not all in a big bunch of records from the beginning.
Q: I think you list them in your report. Let me just quickly go through them. You had the med center hospital records for the three days?
A: Right.
Q: You had some records from Wyandot Memorial Hospital; you had the Riverside Methodist Hospital necropsy report; you had the CAT scans of the brain, the MRI of the brain and the carotid ultrasound, is that correct?
A: Yes, and then down below I said I've had letters.
Q: You received the letters —
Mr. Frasure: He's just asking about records.
The Witness: Oh, excuse me; oh, yes, sorry, yes.
By Mr. Cowan:
Q: Then you also received the two expert reports

Page 21

from Dr. Gelbloom and one from Dr. Gedousky and then you received the &position transcripts of the nurses?
A: Right.
Q: Did you also receive the transcripts of Dr. Giri and Dr. Thompson?
A: Yes, and I neglected to include that in my letter, but I did see them.
Q: And then recently you received copies of Dr. Thurton's records?
A: Thornton, yes.
Mr. Frasure: Yes, I showed them to you today.
The Witness: I don't have them. I have nor received them. I read them, but I should have them, I guess.
Mr. Cowan: And I guess in the package is also some of the Smith Clinic records which are related to the cardiology department, is that safe to say?
Mr. Frasure: Sure.
The Witness: Smith Clinic — I don't know —
Mr. Frasure: That's where Giri and Thompson practice.
The Witness: I see.
By Mr. Cowan:

Page 22

Q: Are there any records that you've received that we haven't mentioned?
Mr. Frasure: I don't think so.
The Witness: The stress test?
Mr. Cowan: I think that's also filed in the cardiology stuff.
Mr. Frasure: Yes, that's the Wyandot Memorial Hospital.
The Witness: Got all that; no, there are no other records.
By Mr. Cowan:
Q: Doctor, did you draft a preliminary expert report prior to your expert report of September 21st, 1999?
A: No; what do you mean by preliminary?
Q: Like a preliminary draft, you may have sent to defense counsel and then an actual final draft?
A: No.
Q: So this is —
A: I always draft my letter — in other words, I can't just OUE of my head write a letter this precise, but the answer is I got it from my secretary and then I corrected it for whatever I might have done wrong, but that's the end of that.
Q: But you didn't send it out to defense counsel

Page 23

who made corrections and then you made corrections?
A: No.
Q: Doctor, how many hours have you spent on this case including reviewing the records, drafting of your report and the conferences with the defense counsel?
A: My secretary would have that precisely but —
Mr. Frasure: Approximate, Doctor, as best you can.

By Mr. Cowan:

Q: Is it possible you could provide me with a breakdown?
A: Well, I'm looking right now, Here's the only — I have two charges, one for five hours and one for twenty minutes.
Q: So as of today, prior to the conference you had with Mr. Frasure, it's been five hours reviewing plus another twenty minutes?
A: Unless I forgot to add it up which is conceivable; sometimes I simply tell my secretary — let's say this letter, if I dictated the letter and I said it took me forty-five minutes, I'd say charge forty-five, so I wouldn't have it written. Anyway, the answer seems to be that it's five or six hours.
Q: And have you been paid by defense counsel?
A: To be quite honest, I don't know. I trust

Page 24

him so far.
Q: He's a trustworthy person. Doctor, have you spoken with any of the defendants, Dr. Giri or Dr. Thompson?
A: No, I have not.
Q: Doctor, did you review any medical textbooks including your own prior to this deposition?
A: I did.
Q: Okay, are there any articles or journals in those textbooks that you believe are germane to the issues that are involved in this case?
A: I think what I'm — the literature there's a regard to the differential diagnosis of stroke so that I reviewed my own book to be sure that what I recollect from having read and written is, in fact, what I believe today.
Q: Is your textbook, Cerebral Vascular Diseases, is that a fairly reliable text as it concerns the up-to-date studies that have been going on in this area?
A: I'd like to believe that it is, but I have to admit that a few cases have taken positions on topics that others don't agree with because I believe that what I have to say is the correct way rather than simply say some do this and others do that and some don't do either one. In other words, it's not a

Page 25

summarization of everybody's literature. It's a summarization of my own personal experience and beliefs.
Q: So it would be fair to say that your textbook wouldn't be deemed to be as authoritative in the general field of neurology or cerebral vascular disease?
A: No, I think it's more authoritative, because I've had fifty years of experience in the field.
Q: Now there are other textbooks that are out there. Can you list one or two other ones that are popular amongst neurologists?
A: Yes, there's one by Barnett, Stein, Yatsu and Moore. There's the one that I edited, the Handbook of Clinical Neurology with chapters by peopie from all over the world which would probably be the ultimate reference source until recently. There's one by Kaplan, Louis Kaplan.
Q: Is that with a K?
A: K-A-P-L-A-N.
Q: What about the Victor one?
A: Victor one is pretty good, but he and Adams are not — they are part of Harrison's textbook which is used mostly by generalists and neither one of them is — they are both older than me and out of practice.

Page 26

Q: Doctor, is it safe to say that your opinions today will be limited to your areas of specialty?
A: Yes.
Q: Doctor, after reading your expert report, would it be fair to say that one of your opinions in this case is that Dr. Giri and Dr. Thompson's diagnosis of seizure disorder on October 29th, 1996 with Todd's paralysis was a reasonable one?
A: In my opinion it was reasonable to assume that.
Q: Doctor, can you tell me why, from your view of the records, why you think that is a reasonable differential diagnosis to have the seizure disorder with Todd's paralysis?
A: When dealing with an emergency room patient, who can't give you a history, who is found — one with evidence of a bruise or something on the chest indicating injury, in someone who's taking an anticonvulsive, a logical physician would think this person had a seizure and he's on anticonvulsants for that reason. It is very common to have injury in a convulsion, unusual to have it in a stroke. Most strokes don't begin as rapidly and instantaneous. They evolve over time. Therefore, the person first gets weak, perhaps in a leg or arm and then over time

Page 27

develops what we call evolving stroke. The only one that presents with a sudden instantaneous ictus from which you might fall and injure yourself is a hemorrhage. So within the differential diagnosis in this patient would be a hemorrhage into the head with a convulsion or some loss of consciousness or a convulsion with a sudden fall to the floor and self injury and that the loss of consciousness with the gradual recovery is typical for the seizure, not typical for a stroke; that if one is going to have a sudden massive cerebral infarction, one is going to have it. The chances are they would not specifically lose consciousness from the beginning. The other compelling thing that I didn't see until today but which is — adds substance to what I've been saying is this man was said by his parents to have episodes of right-sided events, call it what you will, and that on a previous occasion he'd been walking out and he had a sudden loss of consciousness and confusion. This kind of recurrent loss of consciousness is not vascular. It's seizures.
Q: Doctor, do you think that when he first came into the emergency room that a TIA should have been part of the differential diagnosis?
A: I spent many years laking care of this

Page 28

particular thing. This is what I consider to be my own area of extra special skill, above which I was referring having written a chapter which deals with views which I think are as good as anyone's, if not better, and I have yet to see a loss of consciousness of an abrupt nature with injury from what's called a TIA. It just doesn't happen.
Q: Doctor, would you agree with me that Dilantin can be used for treatment of other disorders and not just as anticonvulsives?
A: Rarely, yes; everything from cardiac disrhythmia to peripheral neuropathy for pain.
Q: Doctor, were you aware — I b o w you just got the records today that he was — that John Martin was treated for a neuropathy —
A: I was just told that, but I don't see any evidence that he had one. It wasn't well documented. Neuropathy as a rule means lower extremities and lower extremity means absence of ankle jerks.
Q: What about peripheral neuritis, what is peripheral neuritis?
A: It just means the peripheral nerve is inflamed.
Q: Were you aware —
A: Any one, there are hundreds of nerves.

Page 29

Q: Were you aware that he was diagnosed by his family doctor with peripheral neuritis in his hand?
A: I just was told that today and who would have guessed that? It is not usual and customary to treat the neuritis in the hand with an anticonvulsive.
Q: Can Dilantin be used for people with pain disorders and migraine headaches?
A: Yes, it *can*. Does it work?
Q: Does it work?
A: Not well.
Q: Can Dilantin be prescribed for patients with peripheral neuritis?
A: Usually of the lower extremity and usually for pain; there are several forms of peripheral neuritis. One is a pain syndrome. Another one is a weakness syndrome and a third is an autonomic sympatheticparasympathetic fiber, vascular problem. Most neuritides are for the lower extremities and what's interesting to me having just read this is someone diagnosed him as having gout. I didn't see that sustained anywhere. Gout is a syndrome which *can* be misdiagnosed and can be called neuropathy.
Q: Do physicians give Dilantin for gout or is that—
A: That would be news to me. I don't know.

Page 30

Q: Is hemiparesis a common symptom of a seizure disorder with Todd's paralysis?
A: *That* definition would mean a focal motor seizure in the motor strip of the opposite hemisphere and if one has a legion in the appropriate place meaning anything from *a neoplasm to* an arterial venous valve formation or scar or head injury, whatever, Todd's paralysis is a common event for focal motor seizure, but it is *not* a common event for convulsion per se.
Q: Is a left eye deviation *a* common symptom of a seizure disorder?
A: In a postdictal state, yes; in a focal seizure; you keep having to say focal. Now what this means is you begin with a focal abnormality due to one place in the brain that starts firing *off* and once that fires often enough, it is called exhausts the opposite part of the body which is — once that happens the brain sometimes has what's called a generalized convulsion. In other words it spreads from focal to generalized which causes a convulsion and the person awakens from that confused, unable to respond and paralyzed in the area of the brain where the seizures began. That becomes a localizing sign and symptom and that's what is called a Todd's paralysis.

Page 31

Q: Doctor, would it be important to you that John's parents told the ER physician that they were unaware that their son had a seizure disorder?
A: No, the reason *is* most thirty year old people don't tell their parents anything, *so* it has nothing to do with anyone. It's just that adults take care of their illnesses. They don't always tell anybody particularly about seizures, because if you are told you have a seizure, you lose your drivers license in many states, so it's kept quiet.
Q: Now what if, in this *case,* the decedent Lived at home with his parents?
A: I wouldn't opine — I don't how. I just know it is very common to have people deny seizures when they have them, including certain pilots for the airlines that I happen to take care of.
Q: Doctor, what would be the appropriate standard of care if you suspected a seizure disorder in an obese thirty-nine year old male with right hand paresis who has a history of taking Dilantin? I guess my question is, what would you have done when presented with that situation assuming your diagnosis is a seizure disorder with Todd's paralysis?
A: I would get a stat Dilantin level. I'd put him on seizure precautions and careful observations and

Page 32

get a CAT *scan* to see if I *can* find a focal underlying legion, and with a little more leisure, I'd get an EEG.
Q: Now if the CAT scan comes back negative, what does that tell you or rule out?
A: Generally hemorrhage but it doesn't rule out a scar or an AV malformation unless it's a big AV malformation.
Q: Now you mentioned that you would order an EEG. And what are you looking for in the EEG?
A: Well, you look for evidence of a — either a hyper or hypo increased or decreased electrical activity. Following a seizure with using what I mentioned earlier, it's called the exhaustion, the EEG may be abnormal at flat or slow and around it. If the person is still ictus or having more *seizures,* it would be spikes.
Q: And if one was to order an EEG on a stat basis, from your years of practice, what kind of time frame are we looking at from the time you order an EEG stat? Is it two hours, four hours that you would expect to get the results back?
A: EEG depends. They are usually scheduled and not everybody has the capacity to do portables. If this person is still in dire straits, you defer the EEG until they stabilize their breathing, their level of

Page 33

consciousness, et cetera.
Q: Let's say that the patient is stable.
A: Okay, and does the hospital have a portable EEG that they *can* take different places?
Q: Yes.
A: Then I'd say within two hours.
Q: Now going back to a diagnosis of the seizure disorder with Todd's paralysis, after doing the EEG and *let's* say the EEG comes back normal, are there any other tests that you would do to rule out the Todd's paralysis or a seizure disorder? Let's say your diagnosis is turning out to be incorrect; is there some test that will tell you that this person doesn't have a seizure disorder with Todd's paralysis?
A: No.
Q: Doctor, is it fair to *say* that a seizure or focal convulsion is accompanied by a short-lived focal neurological deficit which can simulate a TIA?
A: *It* can and within the subtlety of the difference, generally ninety percent probably of patients who have a TIA simply have a loss of use, ten percent have a focal convulsive sort of movement; limbs shaking TIA's.
Q: Now with the seizure disorder, isn't the actual neurological deficit short-lived? There's a

Page 34

time where that deficit is going to end?
A: Well, they usually say upwards of twenty-four hours before Todd's — *in* the flagrant cases, you've got twenty-four hours in which to wait before the Todd's paralysis clears.
Q: Would it be fair *to say,* then, *if* the neurological deficit remains after the twenty-four hour time period, you can rule out the Todd's paralysis seizure disorder from a differential diagnosis?
Mr. Frasure: In this *case* or —
Mr. Cowan: In general.
The Witness: The longer it goes, the less likely it is, but I do believe I would have to *search* the literature, because I don't *carry* it in my head that in the EEG or epilepsy literature cases forty-eight hours would not be absolutely unheard of, just be less likely.

By Mr. Cowan:

Q: Assuming in the case of John Martin that they — assuming negative CAT scan per the radiologist report and the fact *that* the neurological deficit continued past twenty-four hours, would it be your opinion that at that *point in time* you could rule out Todd's paralysis seizure disorder from your differential diagnosis?

Page 35

A: I would eliminate it. I'd put it down at the five percent level.
Q: What, at that point in time, in the case of John Martin, what would be your number 1 on your differential diagnosis after the first twenty-four hours assuming the EEG came back normal, CAT scan negative?
A: If he's not recovering, you mean?
Q: Right, and the deficit continues.
A: I would say it's an established stroke infarction.
Q: Doctor, I'd like to ask you some questions about John Martin and in these questions I want you to assume that a diagnosis for TIA or acute CVA is diagnosed on the morning and afternoon of October 29, 1996. That's the first day. So I want you to exclude the seizure disorder and this is just a hypothetical question. Assuming that you've diagnosed or your differential diagnosis is TIA, what would your initial evaluation consist of? What type of tests would you order?
Mr. Frasure: You're not including seizure?
Mr. Cowan: This is a hypothetical, right. Let's say you have a diagnosis of TIA versus possible acute CVA.

Page 36

The Witness: All right, by definition which is somewhat obsolete but still commonly used, a TIA can last for twenty-four hours, twenty-three hours and fifty-nine minutes and fifty-nine seconds. If it goes one second beyond, it is now called a stroke. That's artificial obsolete and useless, but let's just say this man was in the first four hours of his event. It's very easy to call this — except for the loss of consciousness and the self-injury and the extreme repetitive of its onset, it is more likely to have been a hemorrhage but he got a CT and it was negative. Now a man who is recovering some consciousness but not fully recovered, the next move would be to get an ultrasound of the neck, to see if there's some legion there that could have caused an unusual event, and an echocardiogram to see if, per chance, he had some legion that might have caused an embolus.
Q: What about the prothrombin times, would you have ordered that immediately?
A: No, I think a pro time has to be predicated on the fact that you want to use anticoagulants and I still think it's — given as it was, finding him unconscious on the floor or seemingly unconscious, that is not the usual or customary for a stroke and pro time wouldn't have been one of the high level things I would

Page 37

have ordered. Ne was already on Persantine which if you're thinking of anticoagulant type things, Persantine is an appropriate medication for that. I would say that he would have had a need for a differential diagnosis. You still haven't proved he — if you rule out a seizure, you haven't proved what it is. You've ruled out one thing, but you haven't said what it is. You said it isn't something, not what it is and I stick to the idea that it's — no way in less than twenty-four hours could you have said it wasn't a Todd's paraiysis. Now let's say the twenty-four hours has gone by and it's not a Todd's paralysis, what else is it? Knowing what the answer is, it makes it easy. He obviously threw a blood clot but at that time how would one have diagnosed that blood clot in his carotid ultrasound would have been — what I always get now because it's a common problem and it's a major problem. Echocardiogram carotid ultrasound is in the differential diagnosis of any prolonged loss of use of heavy —
Q: Excuse me. Would you have ordered the ultrasound of the carotids and the echocardiogram after that twenty-four hour time period?
Mr. Frasure: Which case are we talking about? We're jumping back and forth.

Page 38

Mr. Cowan: In the case of John Martin.
The Witness: Yes.
By Mr. Cowan:
Q: And you realize that in this case they were not ordered until the third day which would have been October 31st?
A: All right.
Q: Going back to the — you're aware that the emergency room doctor did a prothrombin time and they activated a partial thromboplastin?
A: Yes.
Q: Why would the emergency room doctor — or what is the significance of the values — I can just show you the test results. The prothrombin is a 13 and I gather beside it is the normal range?
A: Yes, that's normal.
Q: And the second line, is that the —
A: Partial thromboplastin.
Q: which falls within —
A: The normal range, right.
Q: And the reason the emergency room physician wanted those results, is that in case he wanted to use something like an anticoagulant?
A: Might have been.
Q: And would these results be in the range

Page 39

whereby one could use anticoagulants?
A: That's right. They could be.
Q: And these ranges would show at least from this test that there doesn't appear to be any abnormal clotting problems, is that correct?
A: That's true.
Q: On the emergency room physician when you took the blood work on October 29th, the glucose level was 99 with the range here being 70 to 110. Do you find that glucose level to be a little on the high side?
A: No.
Q: So that wouldn't concern you?
A: No.
Q: Doctor, in your practice with a patient — let's say after the twenty-four hour time period, where you've ruled out the Todd's paralysis, would you order — you mentioned the ultrasound. Would you also order the MRI at that point in time or would you order an MRI within the first twenty-four hour time period?
A: MRI in the presence of a negative CT is an elective procedure. I think that if that CT had been showing something or read as being taps abnormal, you'd get an MRI. I think that an MRI is an expensive test that you get in order to institute a therapy and you don't get it simply for curiosity and I think that an

Page 40

MRI while you're observing a patient because you think he has a Todd's paralysis isn't necessary. If after the twenty-four hours you think that something else is the etiology, certainly you should get an MRI.
Q: And you're aware in this case that the MRI was ordered on the third day and not on the second day?
A: Yes.
Q: I know in your report you discuss the findings of the CAT scan report of October 29, 1996.
A: Yes.
Q: And you state that the CT is of marginal quality and suggests the possibility of edema of a diffuse nature. Is that — that's what you said in your report?
A: That's what I said.
Q: Okay, do you disagree with the radiologist's findings?
A: No, I'm not a radiologist. I'd take it to a radiologist and say what do you think. I never put myself up against a radiologist and say this is what it is and you're wrong. I believe it's often appropriate to confer with the radiologist when you suspect something, get them to give a final opinion.
Q: Can you state with a reasonable degree of medical certainty that there was evidence of hemorrhage

Page 41

or edema on that file of October 29, 1996?
The Witness: No.
Mr. Frasure: The test is reasonable medical probability, not certainty, more likely than not, so I object to the form of the question.
The Witness: I cannot. I'm not an expert in that field.
By Mr. Cowan:
Q: Now, Doctor, assuming for this next set of questions I'm going to ask you — on October 29, 1996, let's say you've got a diagnosis of an systemic stroke; the CAT scan of the brain is negative; you have a thirty-nine year old male, 315 pounds; he cannot speak; he obeys commands; he's got right hand paresis; now let's say in this hypothetical, the emergency room physician hands it over to you for neurological consult. What neuro — and this is ruling out the Todd's paralysis — a case with no Todd's paralysis, what neuropharmacology therapies would you order, if any?
Mr. Frasure: You're asking him to assume there's no Todd's paralysis initially?
By Mr. Cowan:
Q: Correct, so your differential diagnosis in this hypothetical is one of a TIA then, or a stroke.

Page 42

A: Another person, not this one?
Q: Correct, right.
A: If all studies are negative, I'd personally use anticoagulants and Heparin. Now remember, this man was found unconscious or lack of any — unable to express when it began. He was not observed so, of course, he cannot be eligible for TPA which one of the physicians had suggested and I think that would have been blatantly wrong, so then we get to the next level which is would Heparin been possibly used and the answer is yes.
Q: Now why in this hypothetical you would use anticoagulants versus the case with John Martin with the diagnosis of the seizure disorder? Is it because the anticoagulant could have a disastrous effect if somebody has a seizure?
A: That's exactly true.
Q: And what could that do if you give somebody who has a seizure disorder anticoagulants? What would happen?
A: Well, first of all, Heparin without any trauma or seizure or any other kind of event can cause bleeding of internal organs and even of the brain. When one has a seizure, not only does one thrash about uncontrollably, but often they have to be restrained.

Page 43

For example, you put something in their mouth so they won't bite their tongue, but if they bit their tongue and they're on Heparin, they'll just bleed to death. Now during a convulsion, the blood pressure goes up dramatically sometimes off the cuff. This man was normal tensive. It goes up to the 300 level in the middle of a convulsion. That would have popped his cerebral vessels and made him bleed to death in the brain. One does not use an anticoagulant of any sort, Heparin or any other kind, unless one is morally certain they will not have a complication of that by some underlying problem and the underlying problem in this man was likely to be seizures. If one had another problem like bleeding ulcers or bleeding polyps of the colon, there's all kinds of reasons not to use anticoagulants. The most important one being Heparin has never been proved to be effective by any trial and so those of us who use it are duty bound not to use it if there's a reason that it might cause trouble or a likelihood that it might cause trouble.
Q: Now assuming in John Martin's case after she twenty-four hour time period where you've essentially ruled out the seizure disorder and Todd's paralysis, in your own practice, would you have given this patient Heparin at that time?

Page 44

Mr. Frasure: Let me just object. I'm not sure he said that but for clarification.
The Witness: The answer is no and the reason it's no is that the horse is out of the barn. Heparin is used while it's evolving, not after it's fixed. And there's a big distinction that many people have not yet made regarding the use of anticoagulants. You can use TPA to dissolve a clot. That means a stroke is evolving. Heparin does not dissolve anything. It doesn't restore anything. It simply keeps more clots from forming.
By Mr. Cowan:
Q: Now, Doctor, if you've — at a certain point in time can't rule out the actual origination of the stroke and let's say at a point in time you think there's a cardiac involvement that maybe this is a cardiac embolism, would you at that point give a patient Heparin to stop secondary emboli from —
A: Well, I was under the impression that this man had had echocardiograms which never showed any source for an embolism. One doctor said he might have had mild mitro regurgitation, mitro insufficiency, so to speak, but he d had a full work-up and he didn't have evidence of cardiac abnormalities.
Q: Doctor, are you aware that — of the

Page 45

suboptimal quality of the echocardiogram?
A: Yes, I think that a cardiologist or a person who is supposed to know the answers is willing to write off someone and say they don't have cardiac disease, you take their word for it.
Q: In the echocardiogram it says right off the bat please note the technical quality of the echocardiogram is suboptimal because of the poor acoustic window —
Mr. Frasure: What is the date on that?
Mr. Cowan: 10/30/96, the second day.
Mr. Frasure: Okay.
By Mr. Cowan:
Q: — and the fact that the patient is sub —
A: Well, the horse is out of the barn and I don't think an echo done after he's had all these things is useful. What is useful is before he had it and he had a full cardiac work-up less than a month before the ictus and one would assume that if it was negative, then it was negative then. I mean, if it was negative at the beginning, it would be negative — not enough time had elapsed for there to have been a change.
Q: Doctor, if you thought — if there was a possibility that the origin of the thrombus was

Page 46

cardiac, would you have ordered a transesophageal cardiogram versus a normal cardiogram?
A: In a semi-comatose patient?
Q: Yes.
A: No; again, it would be useless. You don't just do dangerous things. You do something to prove you should do something in response. Now after this man has a fixed neurologic deficit of the kind he had, the use of anticoagulants to prevent further emboli was pretty useless. Ne was already — unless you want to preserve the opposite hemisphere, but once the hemisphere is gone, you don't restore it by preventing another embolus.
Q: At what point or stage would you order a cerebral arteriography?
A: Never.
Q: In a patient such as John Martin, would you have ordered on that second day any antiphospholipid antibody study?
A: Designed to do what?
Q: Find out if there was a presence of any antiphospholipid antibody if it's a genetic disorder.
A: In order to have done what — in ocher words, I'm thinking of treatment now. Sure, I would have gotten those studies in a man of that age, but how

Page 47

would I have changed the course of his events?
Q: You yourself would have ordered those studies, is that correct?
A: Academically I do a lot of things. Practically it would not have changed anything for this man.
Q: Do you h o w if the antiphospholipid antibody testing was ever performed at Med Center Hospital?
A: No, I don't.
O: Have you ever seen anything to indicate that it was?
A: No.
Q: Now, Doctor, I want to assume that you've diagnosed — let's say you've done the MRI; it shows a middle cerebral artery infarction; you've done the Doppler ultrasound that shows an occlusion in the left internal carotid and assuming now that we're on day two which is October 30th of 1996, at that point in time once your MRI studies come back and the ultrasound, what would be the standard of care of treatment of the patient?
Mr. Frasure: This is at day two now?
Mr. Cowan: On day two, so you've found —
The Witness: There are a variety of experimental — and this is where the medical opinion

Page 48

begins to diverge. Some would say watchful waiting. Others would say a decompression surgery to treat edema. A few would say hyperbaric oxygen plus Dexamethasone plus agents to resolve edema.

By Mr. Cowan:

Q. Would Mannitol and Decadron play into that?
A. They'd be among them.
Q: Would you at this point in time refer to a neurosurgical consult, I guess, with the decompression?
A: It would have been what I would do if the family wanted me to and, again, this now gets into the ethics and the right to life and a variety of areas that are personal and I don't know whether this man had a living will or not, for example, and I think when a person is so badly disabled at that age, one sometimes makes very difficult decisions. I don't think there was any way to restore him to function, although there might have been capacity to keep him alive, but whether one wants to live a hemiplegic in aphasia for the next thirty years of one's life is a matter of different choices than I'm prepared to discuss.
Q: Doctor, would you have intubated that patient? Let's say on — this is hypothetical.
A: It depends on how he's breathing; not everybody that is hemiplegic has trouble breathing but

Page 49

at his weight, 315, if he had labored breathing and his tongue fell back, which I don't h o w, yes.
Q: And would you order the Mannitol or —
A: If the family — again, I had to step back one step. I would discuss it with the family and let them decide or help me decide.
Q: And would you order the Mannitol or Decadron to reduce the brain swelling?
A: Again, it depends on — it might reduce swelling, but it would not restore function and then one has massive edema. The only thing that truly restores anything is to decompress which means major surgery on the skull to remove a great big window so the brain can swell out of the brain — so the brain can swell out of the head. And to do that in my impression often preserves a — someone who stays in a — rest home in an unresponsive state for years.
O: Doctor, do we know from the records on day two that there was massive edema? I think the record would suggest that on day three his pupil had blown out.
A: That's me.
Q: On day three you'd agree that there was massive edema?
A: Right, now massive edema may or may not be

Page 50

present before it's clinically expressed.
Q: Would an MRI, if it had been taken on day two, would that show the swelling?
A: Yes.
Q: But unfortunately we only have day three to look at, so you can't say for sure on day two how bad the swelling was at that time?
Mr. Frasure: I'll object to "for sure". The test is reasonable medical —
Mr. Cowan: With a reasonable degree of medical certainty or probability you can't say how much swelling there was in John Martin's brain on the left-hand side that day.
The Witness: No, I can't

By Mr. Cowan:

Q: Doctor, is the mortality rate for patients who have had infarctions involving the middle cerebral artery approximately twenty percent? Does that sound right?
Mr. Frasure: Say that again, *Gary*.. I'm sorry.

By Mr. Cowan:

Q: What is the mortality rate for patients who have had infarctions involving the middle cerebral artery?

Page 51

A: Thirty day mortality — I think you're about right.
Q: And is survival significantly better after a cerebral infarction than after a major hemorrhagic stroke?
A: No.
Q: I'm just talking about survival.
A: Let me tell you something.
Q: I'm *talking* about survival; mortality versus morbidity here. I don't want to trick you.
A: No, you're not and I'm not being tricky, but when you just generalize and say all hemorrhages and all infarcts, you can't do that. You're talking middle cerebral?
Q: Middle cerebral artery.
A: Versus what kind of a hemorrhage?
Q: Just a hemorrhage in the cerebellum or something, in that area.
A: And the question is again?
Q: When has a better rate of survival if it's a hemorrhagic stroke in that area or a systemic stroke?
A: Depends on the size; I can't answer your question. I'm sorry.
Q: Can you tell me from your own experience, do younger patients do better surviving middle cerebral

Page 52

artery strokes than older patients?
A: All things being equal they *can* tolerate bed rest longer but this particular man at 315 pounds is not a typical young man. He's an abnormal man who was evidently not normal all his life from what I understand. He had Legg-Perthes disease and stayed home and who knows what. Was he — I don't h o w any of his social background or his mental background or intellectual background and so on, his disease state or excuse me, underlying diseases. It seems strange to me that a young man such as he was going to so many doctors getting so many treatments for so many problems without some unifying underlying disease and I was quite surprised he didn't have diabetes.
Q: Were you surprised that he didn't have coronary artery disease?
A: I was shocked and also extremely surprised that his blood pressure is normal, so here's this obese person, worked up with reasonably normal results by good doctors who ends up having this event, unheralded. A month earlier he'd had a passing out spell with confusion. Anyway, he had a *lot* of problems.
Q: Doctor, from your review of all the medical records in this case, would you classify Mr. Martin's stroke as a progressive stroke, a partial non-

Page 53

progressive stroke, or a complete stroke or is it a combination?
A: A completed.
Q: So the moment that he got into the emergency room, it's your testimony that it was a completed stroke?
A: Yes; within the frame of reference of what we define completed as, he had a stroke; he never recovered, period. Now whether it propagated distally from the place where it had been initially that made him hemiplegic is a matter of debate.
Q: Is it possible that the clot in the internal carotid could Rave gone up to the middle cerebral artery sometime during that time period that he was —
A: Conceivable; it is my belief that anticoagulants would not have prevented that.
Q: Had John Martin been diagnosed by the end of day one, let's say; by the end of day one, October 29th, or by the morning of day two with an acute systemic CVA of the middle cerebral artery and inclusion of the left internal carotid and had proper support measures and neuroprotective therapies been used, do you have an opinion based on a reasonable degree of medical probability as to whether John Martin would have had a greater than fifty percent chance of

Page 54

survival? I'm saying if they diagnose it now, end of day one October 29th or early morning of October 30th.
Mr. Frasure: Diagnosed the completed stroke?
Mr. Cowan: Correct.
The Witness: By the end of day one, meaning twenty-four hours; diagnosed his complete stroke, what?
By Mr. Cowan:
Q: And had proper support measures. the ones that you said you would have done and if there had been
than fifty percent
A:
decompression?
Q: Let's say wi
Q: On both accounts?
A: If he had a surgical decompression, it would increase his likelihood of survival, but the quality of life might have been intolerable.
Q: But he would have had a greater than fifty percent chance of living?
A: I didn't say greater than fifty. I just said increase.
Q: You cannot give a specific —

Page 55

A: No, I can't.
Q: Doctor, upon your review of the records and the necropsy report, would you agree that the middle cerebral artery clot as well as the left internal carotid artery dot had a cardiac origin?
A: Well, I'm looking for origin and there are some individuals who have paradoxical clots, particularly people who have extreme obesity. I call him extreme. They have pulmonary venous thrombosis. I think it strange that the chambers of the heart and valves showed no evidence of clot and it's common that pulmonary AV shunts or pulmonary legions per se can lead to clot, embolus and that's where I would be looking if I were faced with the same problem. The other is, that occurred to me, that this might have been an origin from the aortic arch and not from the heart itself.
Q: Okay, so aortic arch is outside of the heart, then?
A: Yes.
Q: I think the necropsy report states the belief, I guess, of the neurologist there was that the origin of the thrombus is the aortic arch or possibly the left subclavian artery. Do you go along with that neurologist's findings?

Page 56

A: Well, I'm always willing to learn from somebody that knows more than I do. I think that they'd have to explain to me how it would go backward from the left subclavian artery to the left carotid which are not necessarily — they don't come off the same place in the aortic artery,
Q: So would it make more sense that the thrombus — there was a thrombus on the aortic arch that would have thrown the clot to the carotid —
A: And to the subclavian.
Q: And that's what you think the actual — that's how it happened; is that your view?
A: No, if I would — I can review it if you want me to. The McProxy report says the aortic arch is dean, does not have athero in it which makes it strange that there should have been a primary clot in that location. Now if the dot is adherent and solid in contrast to the one in the internal carotid which was soft and easily movable, then you have an answer that suggests that it is — just a minute, let me review this. The other consideration that I put out for you is that the man Rad a pulmonary venous occlusion and that the pulmonary veins feed into the left atrium and it's common that you take out the heart and look at everything, but you don't look at the

Page 57

lungs.
Q: In this autopsy, I don't believe they looked at the lungs.
A. I don't know.
Q: Do you have anything — mine doesn't have anything.
A: Well, for example the dependent portions of the lower Lobes and this is the thorax — the dependent portions of the lower lobes are dark bluish red; no dissection of the lung was performed and the lungs are left — that means they didn't remove them.
Q: But in the necropsy report the — I don't know what page, page 2 it says thrombus occupying left internal carotid extending the left middle cerebral artery halfway to the point of trepidation.
A: Yeah, and then it says above, in the middle paragraph in the middle of the middle paragraph, the

e that, examination of
fixation is already —

Page 58

there's no evidence of atherosclerosis whatsoever on the smooth, shiny surface; however, block in the osteal left is a dot, as if it came from somewhere else, of course.
By Mr. Cowan:
Q: That's the clot that didn't cause the internal carotid or the —
A: It says it has a tail like elongation of one centimeter in length and two millimeter in diameter extending to the interior aspect of the margin of the osteal left carotid artery and they're suggesting that this is one dot of which it was long and part of it went ineo the subclavian. That's the front of it, and the back of it went into the origin of the left carotid. It says there's no thrombus or narrowing of the osteal of the right — which is the one that goes up to the right. Clot blocks the ostium of the left subclavian extends into the left subclavian for a distance of seven centimeters. Then he goes further and says how patient of the left common carotid and internal carotid artery reveals no thrombi or occlusion. Then he goes further, under examination of the brain its thrombus of the left internal carotid artery and extended to the left middle cerebral artery halfway to the point of trepidation meaning distal

Page 59

carotid, I guess.
Q: Doctor, you're not a pathologist, is that correct?
A: No, I'm not but I can read what they say.
Q: So do you disagree with the findings that — which would be on page 2 saying autopsy revealed recent thrombosis of the aortic arch and ostium of the left subclavian artery. This site, thrombi embolus reached the —
A: Show me where that is, please.
Q: Page 2; let's go back to page 2 of the document, right over here. It says autopsy revealed recent thrombosis in the aortic arch and ostium of the left subclavian artery. From this site thrombi embolus reached the intracranial part of the left internal carotid and continuous left middle cerebral artery. Do you disagree with that?
A: No, I agree with that. By thrombosis I think he's probably meaning — I won't say what somebody means, but I think if you use the word thrombus in the aortic — when you say thrombosis, that means a legion in there which had a thrombus occur on it. Thrombus means it could have come from anyplace. But there was, of course, a thrombus in the aortic arch or ostium and left subclavian.

Page 60

Q: Doctor, from your review of the records in the necropsy report, would you agree that John Martin did not have atherosclerosis of his coronary arteries?
A: I do.
Q: Doctor, do blood clots — do blood clot embolisms dissolve more faster than atherothrombotic infarctions?
A: No, the athero doesn't lice. it's there but a thrombus on it would lice at the same rate as a thrombus anywhere else.
Q: Doctor, would it be fair to say that Dr. Thompson on October 30th which is day two contemplated a cardiac source and ordered an echocardiogram?
A: I don't know.
Q: Do you recall he ordered an echocardiogram on October 30th, 1996?
Mr. Frasure: Look at the records, Doctor.
Mr. Cowan: October 30th around 8:30 A.M. at the — I believe Dr. Thompson requested a cardiac consult and ordered an echocardiogram.
The Witness: Called consult about echo to Peggy in heart, SA Ballis; is that what you're talking about?
By Mr. Cowan:
Q: Correct; he testified in his deposition that

Page 61

he ordered an echocardiogram.
A: Okay, and after that cardiology says hold off on cardiac work up for reasons I can't understand.
Q: But we do h o w Later on October 30th, the cardiologist did do the echocardiogram, You don't disagree with that?
A: No.
Q: And we stated earlier that the — it was a suboptimal echocardiogram.
A: Yes.
Q: Now if you got a suboptimal echocardiogram and were informed by the cardiologist, would you redo the echocardiogram and that's if you're thinking there's a cardiac source of the blood clot?
Mr. Frasure: When are we assuming the cardiologist is recommending it?
By Mr. Cowan
Q: I guess in my hypothetical is the cardiologist comes back to you telling you that the echocardiogram is a poor quality. My question is what would you do as the —
A: I would ask the cardiologistwhat he recommends. If he would say hold off, you can only do what you can do and if he says he can't do it, he can't do it and if you order it again, it still doesn't mean

Page 62

he can do it. All I know is it is suboptimal and the cardiologist obviously would try his best and if I were the neurologist or the physician in charge, I would say when can you do it and make it work?
A So you would like to get one performed, is that correct?
A Well, if I was — thought it might make a difference in what I might do I would insist on keeping at it until it is right. But I think when you're dealing with a person who's extremely disabled you're trying to preserve life at that time. I don't know what his condition was. Was he stable enough to transport would be the question in my mind. I don't know.
Q: Doctor, let's say in this hypothetical there is a cardiac source and let's say of an embolism. Would the use of anticoagulants at that time be warranted for acute cerebral systemic infarct when a cardiac source of embolism is demonstrated and your CAT scan had come back negative?
Mr. Frasure: You're asking to assume prospectively that we know there is a cardiac source of theemboli?
Mr. Cowan: Correct, for hypothetical; it doesn'thave to be in this case.

Page 63

Mr. Frasure: We h o w that ahead of time.
Mr. Cowan: Correct.
Mr. Frasure: You're asking would he prescribe anticoagulants?
By Mr. Cowan:
Q: Correct, if you now have tests done, you find those thrombus somewhere on the heart, would you use anticoagulants at that point in time?
A: In a man that has got evidence of changing level of consciousness it is extremely dangerous to give Heparin because you convert notoriously — you convert embolism to hemorrhage and most people will not give anticoagulants to someone who is suspected of having a cerebral embolism from the heart at the acute phase of the legion if they have a disability. The reason is they very frequently recanalize and bleed so hardly anybody uses anticoagulants in the hyperacute phase of cerebral embolism.
Q: So it's your testimony that anticoagulants given in an acute state may cause the infarct to become hemorrhagic?
A: That'scorrect.
Q: But wouldn't you agree that most clinicians believe that the danger of reoccurrence outweighs the risk and provided that the CAT scan shows no bleeding,

Page 64

anticoagulant therapy should be initiated immediately?
A: I do not believe that and I so state in my textbook and I doubt if you could find most people who would say that. Some might but most won't.
Q: You don't think that most clinicians believe that the danger of the hemorrhagic occurrence outweighs the risk?
A: No, no, you had it reversed. You told me that the risk of another embolism is greater than the risk of the hemorrhage. If that's what you said, most doctors would not believe that.
Q: Would you agree that anticoagulants may reduce recurrent embolisms by as much as seventy percent?
A: Over how much time?
Q: I guess, let's say over twenty-four hours.
A: No, I wouid not. You'retalking about now is preventing them over time. The embolus that's happened already is like you said before; the horse is out of the barn; then you close the door. It's too late. You mtght after that particular event to the brain or wherever else it went is over and done with, then put the person on long-term anticoagulants as I do, but during that interim between the acute event and the recovery from it, the person is on his own and the

Page 65

reason is that the hemorrhage is so likely to happen that it is one of the worst things you can do is to take a person who had an systemic infarction and invert it to a massive bleed. You just don't do that; above all do no harm and this is where you get into the problem of harm.

Q: Doctor, going back to the facts of this case, on October 31st, 1996 at around 11:15 A.M., Dr. Giri noted the enlarged pupil. What is the significance of that finding?

A: Incipient herniation.

Q: And what would be the appropriate standard of care and treatment for a neurologist?

A: Again, it's where I would counsel with the family to fund out what the personal beliefs are and what the person who had the problem beliefs were. There isn't one single standard when you reach that phase.

Q: Assuming the parents want their son to survive or at least have the attempt at it

A: Then a surgical decompression.

Q: Would you intubate the patient at that point in time?

A: Depends on the breathing; when the pupil is blown there about to herniate which means the brain

Page 66

stem is to be affected, that's a warning sign. It's a sign to decompress from above and assign that breathing may be impaired over time.

Q: Would you order Decadron or Mannitol or things that might reduce the brain swell?

A: If the family wanted it, I'd do it.

Q: And would that be done immediately if the family wanted that?

A: Yes.

Q: Do you think a four or five hour — let's say the family wanted those measures. Would a four or five hour delay in receiving Decadron or Mannitol, could that — how would that affect the situation?

A: The longer it lasts the worst — the less likely it is to work

Q: Doctor, are you aware from the review of the records that John Martin's condition had improved from the emergency room to the ICU on October 29th, 1996?

A: That's what they say.

Q: Is that a good sign if you're going to try and diagnose a stroke or treat a stroke?

A: Yes, that's a good sign. It's always a good sign when a person gets better.

Q: Doctor, based upon your review of all the medicai records and the necropsy report, did John

Page 67

Martin have epilepsy or a seizure disorder?

A: From the records I think he did. From the autopsy there's no way to tell. Autopsies don't show anything often in people with epilepsy.

Q: So it's your opinion that you believe that John Martin did have a seizure disorder?

A: in my opinion it's as likely as anything else and from the history as given of limbs shaking on repeated occasions, of an episode of loss of consciousness for no apparent reason, with confusion thereafter which is typical of a seizure plus self injury when he was found unconscious, those are seizures. Now whether or not the doctor gave him Dilantin for neuritis or for seizures, I'll never know, nor will you. It seems to me that he might have been playing both ends against the middle, I don't know.

Q: In any of the records that you've seen, has John Martin ever been diagnosed with a seizure disorder?

Mr. Frasure: Prior to this —

Mr. Cowan: Prior to corning to Med Center Hospital.

Mr. Frasure: Yes.

By Mr. Cowan:

Q: Have you ever seen a diagnosis of seizure disorder by any physicians?

A: It said questionable.

Q: But I'm asking if you've actually seen anything in his medical records or any physician in his medicai records diagnose seizure disorder?

A: I thought it was in his local doctor's differential diagnosis, when he went out to get the mail and was found unconscious.

Mr. Frasure: That was the syncopated episode.

The Witness: The syncopated seizures is a tough differential diagnosis and many people call — Iet me see that.

By Mr. Cowan:

Q: I guess my question is, is there an actual iq diagnosis of seizure disorder or epilepsy anywhere in the medicai records that you've reviewed?

A: Well, again, I go to 8/6/96, passed out after going into the heat for mail; found self lying on the right side, confused briefly.

Q: Could that have been exhaustion or heat exhaustion or sun stroke or — we're talking about a man who's 320 pounds.

A: How far did he have to walk to get the mail?

Q: Can we assume he's not in the best of shape?

Page 69

A: If he lived on a country lane and walks three miles, yes, but if he lives as the average person does and he walks out to the mail box, there's no excuse for fainting. He had a seizure.

Q: But does his physician ever have that diagnosis anywhere?

A: No, that's what I say.

Q: That's your opinion, correct?

A: Correct.

Q: And you've never examined John Martin?

A: That's true.

Q: Doctor, you're not an expert in hematology or genetics, is that correct?

A: No, I'm not.

Q: Doctor, from your review of all the records in this case, are you aware of my positive blood lab findings or tests that demonstrate or conclude that John Martin had a protein C or protein S deficiency in his blood?

A: I don't see any evidence that it was tested for.

Q: Doctor, are you aware of any positive lab findings that conclude or demonstrate that John Martin had antiphospholipid antibody in his blood?

A: I don't see the evidence or test run.

Page 70

Q: Therefore, Doctor, is it fair to say that you cannot state with a reasonable degree of medical probability that John Martin had a genetic hypercoagulable disorder?

A: No, I cannot but I also find other reasons and explanations for formation of blood clot including obesity, lack of —

Q: I'm talking about the genetic things like protein C or protein S.

A: I agree. I do nor have that evidence.

Q: If he had one of these disorders, would that be found in his mother or his siblings? Would they have the disorder?

A: I don't know. It is a genetic abnormality. Whether it would be specifically be found in what member of the family and the genetics of it, I don't know.

Q: In fact, I believe the neurologist at Riverside Methodist Hospital requested the family members get tested for some genetic factors. Are you aware of that?

A: No, I'm not. What did they find?

Q: Fortunately I have to ask the questions. I'll tell you afterwards.

Mr. Frasure: It was negative.

Page 71

Mr. Cowan: You're correct.
The Witness: Oh.
By Mr. Cowan:
Q: Dr. Toole, from the review of the records, do you think that the conversion disorder should have been part of the differential diagnosis on October 30th and October 31st; that's day two and day three?
A: No, it should not have been and I think the person who said it was putting down information beyond the scope of his knowledge.
Q: Is that the cardiologist who brought it up first?
A: Yes.
Q: And conversion disorder is not a life-threatening event?
A: Well, I don't think it entered into the differential diagnosis and I don't think he should have written it down.
Q: Were you aware that Dr. Thompson on October 31st, the last day, had requested a psychiatric consult?
A: No, I'm not.
Q: Would that surprise you?
A: Yes.
Q: Doctor, do you have any criticisms of the

Page 72

emergency room physician and his care on the morning of October 29th, 1996?
A: No, I do not.
Q: Now my final few questions I want to talk about Dr. Thompson and Dr. Giri. Do you have any criticisms — let's start with Dr. Thompson, the attending, on his care on October 29th of 1996?
Mr. Frasure: Standard of care deviations?
By Mr. Cowan:
Q: Right, do you think he deviated with acceptable standards of care? This is the attending on October —
A: In my opinion, no.
Q: What about on the second day, October 30th?
A: What happens when a — two physicians — one is a general physician and the other is a neurologist interact is a question as to who is in charge sometimes and I believe, if I'm correct, that the physician in charge was Dr. Thompson and that the other doctors were consultants. And in that frame of reference, as advised by others, Dr. Thompson did correctly. I find no fault.
Q: Should Dr. Thompson have ordered the MRI on October 30th, 1996, the second day and the Doppler ultrasound?

Page 73

A: In an academic medical center, I would have done that. In the practice of medicine where each test needs to be done in order to institute a therapy for it, in order to get a diagnosis and start a treatment, I do not believe having done those tests earlier as I would have done would lead to a change in the treatment of the patient.
Q: Would that be the same —
A: Therefore it would be an academic exercise.
Q: What about Dr. Giri, the neurologist, on the second day?
A: Same kame.
Q: Would you have liked him to order the MRI —
A: I would have enjoyed that, yes. I would have thought it would be a nice thing to have, but it would not have changed the management of the patient.
Q: Do you have a criticism of Dr. Giri or the fact that he did not see the patient on October 30th, 1996, the second day?
A: It depends on what the physician in charge wants. A consultant, as a rule, is not a continued second physician. Consultants are usually brought in to see the patient once and unless invited back, are released from obligation. Now in some places and some times physicians who don't have admitting privileges or

Page 74

don't take care of inpatients continue to see such patients even though they are not taking care of the patient primarily. It's a shared responsibility and in this case I haven't been made aware of the differential responsibilities of physicians at that hospital. At this hospital there's one doctor in charge and everybody else is a consultant. So my answer is that if Dr. Giri specifically was just a consultant, nothing more, then he did okay.
Q: Now let's say if Dr. Giri is — the patient is equally shared, then you do have some criticisms?
A: Well, I —
Mr. Frasure: Standard of care deviations, is that What you mean?
By Mr. Cowan:
Q: Yes, if he deviated from standards of care assuming that this patient is shared equally by Dr. Thompson and Dr. —
A: Yeah, I think he would have been — well, bad he been more alert to the inapient possibiiity of cerebral edema and for the treatment of cerebral edema, prophylaxis.
Q: And that was on the third day then?
A: I can't precisely say that.
Q: I think you've already testified your belief

Page 75

that the MRI and the Doppler ultrasound should have been ordered earlier than day three, is that fair to say?
A I'm saying in an academic medical center such as where I work that I wouldn't say that in a community hospital that a think I consider to be an academic exercise to prove etiology which has no therapeutic implication for diagnosis would be necessary. It would be a nice thing to have but not an essential thing to have.
Q: If the middle cerebral artery clot as well as the left internal artery clot could have been diagnosed, let's say within the first twenty-four hours, would John Martin have had, with a reasonable degree of medical probability, a better chance of survival than having it diagnosed on the third day, October 31st?
Mr. Frasure: Objection.
The Witness: Well, on the first day there's no evidence clinically or by CT of swelling of the brain so the swelling occurred thereafter. Part of the swelling is the recanalization. In other words, if there's no blood flowing into that part of the brain, it can't swell. So therefore, that's evidence that what had been blocked off opened up and when it opens

Page 76

up the swelling which is and/or hemorrhage. Now the swelling is a precursor to hemorrhage because the arteries are open; the capillaries are open and they just allow fluid to out where they're not supposed to go out. The next thing that happens after that is hemorrhage, so that the arteries bad become recanalized, the clot had dissolved or gone distally. At that moment in time is when the brain began to swell and the pupil began to blow and when that happens, that becomes a medical emergency if you chose to treat the person to whom that's happened and I don't have the answer to that part of the equation. That's up to the family to decide one way or the other. That's judgment calls.
Q: Now let's say if on — within the first twenty-four hours you ordered a Doppler ultrasound of the carotids and you found the occlusion of the left internal carotid, what can be done at that time to enhance or increase John Martin's survival?
A: First of all, the Doppler of the neck would not have shown the legion of the brain and the carotid that was occluded was distal to the neck, so theoretically the ultrasound, duplex as we call it, not Doppler would have show either an abnormality of pulsation perhaps or flow. In other words, I think in

Page 77

this man — happened is his distal carotid and the siphon occluded and the neck arteries were open and that seems to be the case. Now when that happened and how it progressed up that artery and where it was at any moment in time, nobody knows.

Q: Let's say you can diagnose the clot, at least, in the left internal carotid, if you can get to that pretty quick, do you stop that embolism from going up the middle cerebra artery?

A You're thinking of emergency surgery?

Q: I'm just saying is that a possibility? Let's say within that first twenty-four hours you do a Doppler or a duplex and Let's say they find the dot in that carotid.

A: The answer is you have about three hours to do that. It's just like TPA. Instead of giving TPA, you take out the clot. That's very rare. It's very sophisticated and never once have I done one.

Q: A neurosurgeon would do that.

A No, I mean diagnose and Rave it done. It doesn't happen. That's a theoretical, once in a lifetime.

Q: Two more questions, is it your testimony that the — do you think that the middle cerebral artery clot happened sometime between admission and October

Page 78

31st, 1996 or did the middle cerebral artery occlusion happen prior to admission to the ER?

A: That happened when he fell out, when he lost consciousness. It might have been an embolus that made him have the convulsion and also produced the stroke, but in this particular kind of event, an embolism is notorious for causing a convulsion and it also strengthens the Todd's paralysis, the most likely etiology for the Todd's paralysis. But, again, in this poor man, the event that signaled that he was sick is the one that killed him. It's not the things you could have done. This man had an embolism go to his brain and too bad. He did what he should have done. He went around to see the doctors. He was hurting in the chest. He did all these different things, but it didn't work and I cannot blame the doctors at the end of the train of sequences who happen to be the last [re] ones who got him when he's almost dead for doing what some of the doctors who had seen him earlier might well have been able to diagnose but didn't. Not that they were below the standard, this man had a rare and unusual sequence of events. I happen to think personally, nor as a testifying physician, that his trouble was coming out of his lungs and that his 315 pounds of obesity and he can't breathe right, that he's

Page 79

dotting up his lungs with clot. They're going through his heart, out there and going up to his brain and you weren't going to stop this.

Q: This is your personal belief, not your testifying belief?

A: Well, I might have to say that sometime because I don't believe the autopsy has fully explained what happened to the man. Where did the dot come from?

Q: We don't have the autopsy of the lung.

A: That's true.

Q: I guess, Doctor, my last question is, are you going to testify live at the trial or by videotape on November 30th of 1999?

Mr. Frasure: Videotape, do we have him scheduled for videotape?

By Mr. Cowan:

Q: That's my question. Are you going to testify live or by videotape?

A: I will do whatever I'm asked by my —

Q: Are you going to be in the country?

A: Oh, yeah.

Mr. Frasure: Yes, he's planning on coming in —

The Witness: Yeah, I'll be there the night

Page 80

of Thursday, the morning of Friday, December the 3rd.

Mr. Frasure: So make room for him. That's what he's saying. Get your experts off before then.

Mr. Cowan: I'll try my best; thank you, Doctor, for your time here today.

(The proceedings were concluded.)

Page 81

SIGNATURE

I have reviewed the preceding eighty pages, which contain an accurate transcript of the answers given by me to the questions herein recorded. My signature is subject to the corrections.

James Toole, M.D.

Sate of _____

County of _____

Swom and Subscribed before me this _____ day of _____, 19 _____.

(Seal)

Notary Public

My commission expires: _____

NORTH CAROLINA
FORSYTH COUNTY
CERTIFICATE

I, David L. Overby, Notary/Reporter, do hereby certify that dames Toole, M.D. was duly sworn by Pamela S. Faucette, Notary/Reporter, prior to the taking of the foregoing deposition; and that this deposition was taken by Pamela S. Faucette and transcribed under my direction and that the eighty-two pages which constitute this deposition are a true and accurate transcript of the witness's testimony.

I certify that I am not counsel for, or employed by either party in this action, nor am I interested in the outcome of this action.

I further certify that the stipulations contained In this transcript were entered into by Counsel, In my presence, before the taking of this deposition.

IN WITNESS THEREOF, I have hereunto set my harm this 29th day of October, 1999.

DavM L. Overby
Notary Public tor the
Sate of North Carolina

My commission expires: January 14, 2003

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