A. Exactly.

Q. Thank you, Mr. Freels.

MR. ROSETTI: I have no more questions.

THE COURT: Any recross?

MR. OLDENBURG: Nothing further, Judge.

THE COURT: All right. You can step down. Thank you.

THE WITNESS: Okay.

(Tape 1, Side 2 of 4 concluded)

* * *

(Tape 2, Side 3 of 4 begins)

MR. ROSETTI: Dr. Marois, would you raise your right hand, please.

- - -

DR. PIERRE MAROIS,

being first duly sworn, was examined and testified as follows:

MR. ROSETTI: Please be seated and state your name.

CROSS-EXAMINATION

BY MR. ROSETTI:

A. Dr. Marois, I'm handing you your direct testimony.

If you would turn to Page 6. I'm just going to make sure that is the same numbers.

A. There are no numbers on mine.

Q. All right. Is the signature at the end of the testimony your signature?

A. Yes, it is.

Q. Okay. Beyond that is the --

MR. ROSETTI: Is the recorder working, Judge?

THE COURT: Yes.

BY MR. ROSETTI:

Q. -- a copy of your curriculum vitae?

A. Yes.

Q. It is in French?

A. It is in French. Sorry.

Q. That's okay. I'm going to hand you a copy of it --

MR. ROSETTI: Judge, if it's okay, can he read in English his curriculum vitae?

THE COURT: Do you have any objection to that translation?

MR. OLDENBURG: Unless you --

THE COURT: All right. I can read most of it. I don't have much of an objection but I mean it's not an official language thing.

THE WITNESS: You know, I won't go through everything. It can be too long. But already in my deposition, I have made a little resume of what it

was.

So I was trained in physical medicine. I did first my medicine in Montreal at the University of Montreal, was five years of medical studies. And then I did training in pediatrics and also in physical medicine in rehabilitation of children for four and a half years in Montreal.

I have been received as a specialist in Quebec Province in 1979. Also I am a member of the Fellow of Royal College of Physicians of Canada, which is a recognition of your specialty everywhere in Canada as a physician specializing in physical medicine and rehabilitation with special interest with children.

I have been doing a fellowship in other countries for one year. I stayed in Sweden for three months and a half. I worked a little bit in England. I came to the States, Palo Alto University at Stanford University in Palo Alto. I work in Los Angelos also. I train there at the Rancho Los Amigos Center. I train in Toronto and I train in Minneapolis.

I started working with children with cerebral palsy in 1989 - 1981. Sorry. Since then I have been practicing mostly at Sainte Justine Hospital, which is the biggest health center in Canada,

pediatric center, which now we are a rehabilitation facility which is called Marie Enfant Hospital.

Now I'm working mostly at Sainte Justine but also for the rehabilitation center in Province Quebec, working physically in 20 places with around 25 rehabilitation teams. So I work with about 300 professionals, occupational therapy, physical therapy, et cetera. And I work also with colleagues, neurosurgeons, orthopedic surgeons, neurologists, et cetera.

I have been in charge of all the doctors at Marie Enfant Hospital. At the beginning I was President of the Medical Board for 19 years. There was 100 doctors. I've been also involved in many research practices.

If you look at the curriculum vitae, I just went through very fast some of the areas. There was one page that is my training, one where I talk about the training I did in other countries, and the clinical experience.

I have been working mostly with cerebral palsy since 1981 in many areas in many clinics. It's all hospitals settings or rehabilitation settings. I've seen in consultation more than 50,000 -- I've made more than 50,000 consultations in cerebral palsy so

far.

I have been following more than 3,000 children with cerebral palsy and actively following now about 1500 children with cerebral palsy. That's the most important part of my work.

I have been -- there is a Section IV, which is the presentation. It is all the -- it is all part of the presentation that I did in the symposium, Congress meetings, on many subjects, mostly on cerebral palsy: What is cerebral palsy; the treatments of cerebral palsy; the new treatments that we have proposed with time.

I have put together the first clinic in North America in the world. I did rhizotomy in children since, and we were the only clinical team that was doing that surgery for five years in North America. Since then everywhere in the states it has been used. So we really were the first one to do that.

And I did also a lot of research in neuromuscular disease, muscular dystrophy.

Finally, the last research I have been doing were mostly with HBOT starting in 1998.

So just a little -- Section IV is all the publications, symposiums, conferences I've been doing in many places.

I've been teaching also medicine with all the students of medicine, but mostly all the residents, the doctors who want to specialize in physical medicine and the rehabilitation mostly in children. Doctors come from other countries that come and stay at Sainte Justine Hospital with me. And I am still teaching medicine today.

What else? I have been, you know, I receive research funds for many researches: Neuromuscular disease, rhizotomy, and more recently with HBO treatment. I have also administered the Vexper, Section VI.

I was president of Medical Board for 19 years. I was also vice-president of the Administration Consulate at one hospital for six years. I was member of the Executive of College of Physicians of Canada for some time. I am still part of many communities of research communities.

CROSS-EXAMINATION

BY MR. OLDENBURG:

Q. All right. Thank you.

Dr. Marous?

A. Marois.

Q. Marois. I apologize if I struggle with that.

A. I'm sorry. I am bad for my English. We speak

French all the time in Quebec.

Q. My name is Mark Oldenburg. We have not met before.

A. Okay.

Q. You are not board-certified in hyperbaric medicine, correct?

A. No.

Q. Is there any such board certification in Canada?

A. I don't know.

We don't use the term "board-certified" in Canada. That is not the way it is worded. You are a member of the College of Physicians when you are a specialist. But no, there is no board certification in Canada. That is the equivalent.

Q. Okay. You do indicate in your direct testimony that you're board-certified in physical medicine in Canada?

A. Yes. But, yes, it is the equivalent of board-certified. It means you have the certification. It's not board -- it is -- you have done your exams and you are certified to practice.

Q. I understand.

But as part of any board certification type of thing, there is no such certification in Canada for

hyperbaric medicine?

A. I don't know that there is such a certification like that.

No, I am not -- you know, I don't have a certification in hyperbaric medicine.

Q. Okay. With regard to the study you have been involved in with Dr. Vaness?

A. Varnasse.

Q. Varnasse.

To date, that study has not been published, correct?

A. Which one?

Q. If you have your direct testimony, it's the one --

A. Because I've been involved in three studies with Dr. Varnasse.

Q. All right.

A. The last -- the retrospective study?

Q. I'll just show you what we're talking about here.

It's on the last page of your direct testimony here. I'm sorry.

A. Oh, okay.

Q. Beginning at the very top.

A. Okay.

Q. Just so we are clear, it indicates -- the question is: Have you been involved in any recent studies?

Your answer is yes. I, along with Dr. Varnesse, are participating in the publication article about a retrospective study of HBOT and the treatment of cerebral palsy.

A. Yes. That has -- it has not been published yet.

Q. All right. And to date that work has not yet been subject to peer review; is that correct?

A. Yes, that's correct.

Q. And was that a double-blind study?

A. No, it was not.

It was a retrospective study done with children with cerebral palsy --

Q. I understand.

A. And I think some too on HBOT treatment.

Q. I understand.

Has the article actually been written and accepted for publication yet?

A. Not yet. We are adjusting that. We will be presenting those results at the international symposium next month. It will be also presented in a neurological international symposium in Spain this fall.

Q. And then only after that is presented will it be subject to peer review --

A. Yes.

Q. - and commented on by your peers?

A. Yes.

Q. You have extensive clinical experience in treating children with cerebral palsy; would you agree with that?

A. Yes.

Q. Would you also agree that generally-accepted treatment protocols for children with cerebral palsy would include physical therapy?

A. Sure.

Q. Occupational therapy?

A. Sure.

Q. Speech therapy?

A. Yes.

Q. Medication, if indicated?

A. Yes.

Q. Do you prescribe medications for treating children with CP?

A. Sure.

Q. Would those include Baclofen and Botox injections?

A. Yes.

Q. Do you actually perform the Botox injections yourself?

A. No, I don't do that.

Q. You have someone else do that?

A. Yes. I don't have the time to do that.

Q. The goal of these types of treatments that I've just mentioned - the physical therapy, the occupational therapy, the speech therapy, and the medications - the goal is to increase the function of the child, correct?

A. The goal is to -- it depends.

Botox, it's mostly to treat their spasticity. Sometimes it will improve function and sometimes it will just improve their comfort or release the pain or just it will be easier for the parents to take care of them.

But with physical therapy, also the main purpose is to have mobility but also can improve function.

Same with occupational therapy and the speech therapy, increasing their ability to speak and to walk or to use their hand better.

Q. I need you to do me just a little bit a favor and if you could just speak a little more loudly.

A. No problem.

Q. I'm sure these guys would like to hear, too.

So that use of these therapies, would you agree, is to assist in -- well, preventing complications

would be one thing, correct?

A. Yes.

Q. But it would also be to try to assist or prevent or to promote development in the child?

A. Exactly.

Q. And by using these type of treatments, you may see improvement in gross motor skills?

A. Yes. You can see improvement in gross motor skills. And there have been curves that have been done to really show how it's going with the therapies.

In fact, the curves are called GMFM SES curves.

Can I use this?

Q. If you need to explain your answer.

A. Yes, because it's very important to understand.

This is something that --

Q. I can't see it.

A. Thank you.

Okay. That is zero. GMFM is the Gross Motor Function Measurement. It is used in cerebral palsy. It is used in all developmental problems in children. It measures the function of children.

Usually with a child, we reach one of the percents at the age of five. Okay. So that's one, two, three, four, five. Normal child is like that.

A child with CP, there are five curves. A

little one, two, three, four, five. One is the child that is least cerebral palsy, least involvement. Little five is very handicapped children.

So level one is like that; level two like that; level three; level four; five. What we see there is, yes, with therapy, we see -- because all the children are treated -- we see a lot of improvement in the first year of life, like normal, but you have a plateau that is attained more and more quickly if you have a big involvement.

So with a child that are at level five, for example, the plateau usually is reached around the age of two or three.

So it's, it's right to say that with therapies you improve, but there is curves that have been determined and accepted throughout the world that show how this improvement is made. It's not like this. It's mostly quite progressive. And at one point when you attain the age of three, four, five, you have a plateau and you don't expect much improvement, even with physical therapy or OT.

So you're statement is true that you improve, but much more when you're younger.

Q. And this improvement that you would hope to see through using the therapy that is outlined, that would apply to both fine and gross motor skills, correct?

A. Yes.

Q. And as well as --

A. This group was made with gross motor, but you would expect that it's about the same with more -- there is no curves of fine motor.

Q. And would you also hope to achieve through the use of these therapies some sort of increase in cognitive development as well, if there is a cognitive impairment?

A. Not specifically with physical therapy or occupational therapy.

With time, with a lot of stimulation program or any stimulation with the child, yes, it will improve cognitively. That is a rule with normal people, human beings.

Q. Now, with regard to patterning -- you're familiar with that term, of course?

A. Yes.

Q. And the activities that Mr. Freels described during his testimony, would that be consistent with your understanding of what patterning activities are?

A. Yes.

Q. Do you recommend to the parents of patients with children with CP that they engage in patterning activities?

A. We don't use that kind of therapy in Canada.

There is some groups, little groups where they use it. It's not part of our usual treatments, no.

Q. Why not?

A. I have not seen any big studies done with that.

The involvement in families is incredible. It is -- you know, most of the time it will be hours and hours and hours every day. And we have seen other therapies that most of the time have better or faster results.

But, you know, I have not seen a single study that was really showing improvements. But I have some patients that went to Philadelphia and some parents reported changes.

You know, we don't recommend. It's not easily accessible in Canada. And it's so much of a burden for time with the family that we don't recommend it.

Q. And the parents that went to Philadelphia describing to you, you know, changes or improvements that occurred, that would just be anecdotal evidence, correct?

A. Yes.

Q. And no -- with regard to patterning activities as a recommended therapy, to your knowledge there have not been any double-blind, randomized control studies?

A. With patterning?

Q. With patterning, correct?

A. No.

It would be -- in fact, it would be almost unfeasible because you would have to consider every type of cerebral palsy and to be double blind with therapies like that you could not do that. So, you know, I would not expect anyone publish any time, especially like that.

Q. Even taking away whether there's been a double-blind, randomized control study, to your knowledge there haven't been any studies that recommend patterning?

A. No.

Q. Now, you would agree, would you not, that doing double-blind, randomized control studies is one of the best ways for the medical community to accept or develop -- move to accepting a particular therapy, correct?

A. Certainly one of the best ways when possible. But the problem is that in many areas of work and in medicine, you couldn't do that. If you were using double blind studies to prove every treatment that we were doing, you know, we would stop doing medicine.

It is not more than ten percent of the treatment that we use to be -- that I have been through double-blind, placebo control studies, and in my work in cerebral palsy I don't know any double blind placebo control studies that are showing -- that have been done in

physical therapy, occupational therapy, rhizotomy, Botox, whatever I prescribe. So we would shut down every rehabilitation center in North America who rely on double-blind, placebo-controlled studies.

Q. Would you agree with Dr. Miller's statement that the medical community is, for lack of a better word, being forced to move to have more double-blind, randomized, customized studies before they accept a particular therapy modality?

A. It's a trend, but it is also a contested trend. I'm not -- I'm not (inaudible)

It would be in a -- the best world would be to do that if we can. But, you know, even Botox, which we are recommending and that has been recommended in North America in CP for about ten years, we wrote a prescription for that, you know. It was recommended before there was a single study every published for Botox, and it was paid by most insurance companies and by the health care system much before there was not double blind placebo control study but even a (inaudible) pilot study.

So, yes, the state-of-the art would be to have those kinds of studies but it is not the reality right now. Not at all.

Q. You would also agree with me, would you not, that it is important to have peer review as part of any

study which may recommend a new type of therapy? I'm just not talking about with children with CP but any type of therapy. Peer review is an important part of that process?

A. It is much better, yes, but even with big journals, like Development and Child Neurology Journal, which is the biggest journal in cerebral palsy, it is always not peer reviewed. But, you know, yes, I'm sure it would be better.

But, again, most treatments that are used have not been through even peer-review studies.

Q. And would you also agree with me that simply having clinical experience is not sufficient to the medical community to accept a particular therapy for treatment?

A. Sure. It is -- you need more than that.

But in the case of HBOT, many people have clinical experience. There have been, you know, eight or nine studies so far that have been published or present and you can count, you know, hundreds and hundreds of children in those studies. All those studies were positive. Not a single one didn't show any results. So all the studies were positive so far.

Q. I think you've commented on this, but some of the studies which have been performed, even in your

opinion, have not been very well done, correct?

A. Yes.

Q. And even with regard to the Collet study in which you were involved, you don't think that was done properly?

A. In fact, there was a big mistake right in the beginning when Dr. Collet decided to remove the control group.

Q. And having a control group is very important?

A. It makes --

Q. If you don't mind, let me finish my question just so we're clear. I don't mean to interrupt.

But you would agree that having a control group is very important in being able to determine the efficacy of any treatment or therapy?

A. It is much easier to input the results when you have a control group.

And the Collet study, though the results were so important, changes with the GMFM were so important, they were far more important than with any other studies that were done on CP children evaluating the effect of any recognized therapies that, you know, it was -- we could at least reach some conclusion that the changes were statistically and clinically very, very significant, and at the end of the study we had, you know, some control

just beyond the (unintelligible) of the study.

Q. You worked directly with Dr. Collette?

A. What?

Q. Dr. Collette, isn't that his name?

A. Dr. Collet.

Q. Collet. You worked directly with him on this particular study?

A. Indirectly. Not directly.

I had built the protocol with Varnasse in the beginning and that was a protocol that was accepted in all ethics and scientific communities.

But Dr. Collet was appointed by the government to direct that research and he removed the control group and then, you know, we didn't work much together.

Q. Now, do you know Dr. Collet's qualifications?

A. Yes.

Q. And is he a qualified physician in Canada?

A. He doesn't have the right to practice in Canada. He has the right to do research in Canada. So he is not a member of the College of Physicians in Canada.

He's a pediatrician that came from France and he's assigned mostly to do studies on medication. But he was assigned by the government to direct that study.

Yes, he has absolutely no experience in CP and no experience in HBOT.

Q. But the government of Canada appointed Dr. Collet --

A. The government --

Q. Let me just finish.

The government of Canada appointed him?

A. The government of France Quebec through their organization, research organization that is called "Fonds de la recherce en santE du Quebec." So it was not the minister that appointed him but a research organization of Province of Quebec, not of Canada.

Q. And you believe that the -- well, there is no question that Dr. Collet did not follow the protocol which you designed, correct?

A. Yes.

Q. And you ultimately would disagree with the conclusions he reached that were published in The Lancet?

A. No. The conclusion that was published in The Lancet is that -- and you can read, you can read exactly the editorial of The Lancet when it was published.

It says: The researcher is supposed to relate that either of the treatments were equally effective or the mere act of participating in a trial that promoted communication with other motivated children in Paris had a positive effect. Either way the results are --

I co signed this article, but at the same time

it showed that the participation effect doesn't stand -- in all the clinic -- with all the clinicians that were involved in this research project, no one agreed with that. But we had to say that because we didn't have any control group.

If we had a control group, we would have proven that the HBO was effective. But without any control group, the only two hypotheses that could stand were those two.

The problem is that Dr. Collet lost communication after that. I come to see the article we signed. He says it was a placebo effect. It could not be placebo effect, there was no placebo group in the treatment, in the study, and even the word "placebo" was not allowed to be used in the publication.

The Lancet specifically asked Dr. Collet to remove the word "placebo" and never use it. So then Dr. Collet is saying it was a placebo effect. So almost everyone disagrees, the researchers involved in the study.

Q. They disagree with Dr. Collet?

A. Interpretation of the article.

Q. And he was the one who wrote the article, correct?

A. He is the one who mainly wrote the article.

Q. He wasn't the one that probably did the

writing, there were others involved?

A. Yes.

Q. His conclusion that the -- that there wasn't sufficient evidence that the use of the hyperbaric oxygen therapy really assisted the patients with cerebal palsy, correct?

A. His own conclusion.

Q. Correct?

A. It was not the conclusion of the research. It was the conclusion of the article.

Q. Yes. The article was published. That was the conclusion, that there was no substantive -- sufficient evidence.

A. Yes. Showing we show go and do more research.

Q. Exactly.

Now, why did you allow your name to continue to be associated with that article if you disagreed with it?

A. I don't.

Again, I disagree with what Dr. Collet -- Dr. Collet's interpretation of the article. I don't disagree with the -- mainly with the article.

The article was stating that it could be the two treatments that were collective and that we should do more research to prove that. That has been my position at that time, and since then, you know, I've seen 500 more

children treated with HBOT and I have seen more research done by the U.S. Army, by Cornell University, by Galveston University, by a study that was done in India, and everyone sees changes in exactly the same way we do.

Q. You're familiar with the Agency for Healthcare Research and Quality.

A. I know the name of the agency but I'm not really familiar with their work.

Q. Well, are you aware that one of their roles is to improve the quality and the safety of health care in the United States?

A. Sure.

Q. And have you reviewed the paper which Dr. Miller testified about that is attached and is admitted as an exhibit to this entitled "Hyperbaric Oxygen Therapy for Brain Injury, Cerebal Palsy and Stroke"?

A. I have seen some of the conclusions they reached, yes.

Q. You have not reviewed the whole paper?

A. No, no, no.

Q. All right.

A. Some -- only some segments.

Q. Okay. You are aware --

A. You know, for me it's quite positive.

Q. You're aware that the conclusion of that paper

was that it was difficult to interpret the use of HBOT in CP patients because of the --

A. The lack of control group.

Q. -- the lack of a control group, right?

A. Yes.

Q. Right.

And you don't disagree with that?

A. I don't disagree with that.

But they also say that in their opinion the main hypothesis that could be reached or attained is that both treatment were equally effective. They also say that.

Q. Do you use SPECT scans in your treatment of receiving patients?

A. We have been using SPECT scanning for about three or four years. So the first studies were not done with SPECT scanning. And the last study we did recently -- in fact, it's a retrospective study, about 40 of the 120 children had SPECT scanning, and all those SPECT scans were interpreted by a neuroradiologist at Sainte Justine Hospital.

In fact, what we have seen is that in all the studies we did so far, the pilot study, the double-blind study, and now this study, is about 65 to 70 percent of the children would improve the GMFM, in terms of the Gross

Motor Function, and about 80 percent of the children improve clinically in terms of cognition.

With the SPECT scanning, we are seeing that, you know, around 60 percent of the children show improvement in the SPECT scanning. And sometimes children improve clinically without changing -- with SPECT scan, but I've never seen a change in SPECT scan with the children with CP with no clinical change. All the children that had SPECT scan changes in their pre-post HBOT all have clinical change at the same time.

Q. And, again, the basis of your testimony is based -- is your clinical experience with the treatment of the children under HBOT?

A. Yes. Sure.

I never interpret the SPECT scan. The doctors who interpret the SPECT scan don't have any clues about the clinical progress of the children anyway. So I just put that together and we see that there is a correlation between the two.

Q. And other than that clinical correlation, would you agree that there are no studies that you know of that have been published that directly relate an increased blood flow in the SPECT scan to increased physical functioning or to increased functioning of the patient?

A. I cannot answer that. I don't know.

Q. You are just not aware of any?

A. No.

Q. Thank you.

MR. OLDENBURG: That's all the questions I have, Judge.

THE COURT: Anything on redirect?

MR. ROSETTI: Just a few.

REDIRECT EXAMINATION

BY MR. ROSETTI:

Q. I like charts.

The chart that you have brought up there, the left arch is 100 percent GMF --

A. That is GMFM.

Q. And what is that?

A. That is the Gross Motor Function Measure. It is the measure that is used in every -- almost every study that's done with children with cerebral palsy because it is quite objective. It is not things you ask the children to do he never did before and is getting better with time. You just observe a child and what he's capable of doing and it's very precise.

Q. What is the role -- what is the role of the charting that you used with respect to the studies that you performed under the Collet study? What did you utilize?

A. We utilized the GMFM.

Q. You did?

A. Just like all the studies done in cerebral palsy. And with the Collet study, we did have improvements, quite impressive improvements.

In fact, if we have a chart here, it's like all the studies that were done using GMFM. It's a comparison of changes of Gross Motor Function Measure. It's GMFM with children with cerebral palsy. And, you know, most studies that were done were intensive physical therapy, physio-rhizotomy and intensive physical therapy, electrical stimulation, Baclofen, Botox, and all recognized therapies with children with cerebral palsy.

You have a rate of change, a rate of progress of, you know, most of the time it is less than .5, .6. Sometimes you can reach .8 percent per month. Okay. And that's a GMFM change, .8 percent a month.

And in the Collet study, the rate of improvement was double that. It was 1.5 and 1.45, and so it was twice the -- whatever had been publicated.

Q. 1.5 for one group?

A. 1.5 percent per month in one group and 1.45 percent per month in the other group. And when we did the pilot study, it was 4.9 percent a month.

So the rate of improvement and the amount of

improvement was at least equal or most of the time much faster, much bigger than everything that had been measured in cerebral palsy.

Q. And when you -- when you refer -- you don't actually perform hyperbaric oxygen therapy in your practice?

A. I don't perform HBO therapy. I don't. I work with clinics.

Q. You send them out to somebody else?

A. Like I send people to have Botox injection or I send them to surgery or I send them to rhizotomy or for medication. That is the same thing. It is done in a private clinic and they do it with them.

Q. And you're sending them out in conjunction with other therapies?

A. Yes.

Q. Not just hyperbaric --

A. For sure because the work -- they don't work exactly the same way.

Conventional therapy, like I said, improve progressively more function, the use -- you know, the shortening of the muscles, things like that. But that is the only therapy, HBO, that I have seen changing cognition, communication, gross motor function, treating spasticity, all the aspect of brain function. So it

change really the course of the progress of the children.

I showed you what is natural with therapy with the children, but in the course of Collet study and the other studies what we show is that --

Q. Doctor, the other studies, what do those show?

A. The other pilot study we did in Montreal too, it was published in the journal and the recent study we did is that we can see children that are there suddenly have a big jump in their gross motor function.

And then after a while, without HBO therapy, they just go on the curve again and then they have a jump with new therapy. Some children have change (unintelligible) with those of cerebral palsy. It has never been shown by any other therapy so far.

Q. Just to clarify, you were signatory to the Collet study?

A. Sure.

Q. And you agree with what was published in The lancet?

A. With most of it. There is part of the discussion that, you know, I don't really fully agree. But the main article and the big conclusion where we should do more research and there are two hypotheses, yes.

Q. The first hypothesis is simply a matter -- what was the firstly hypothesis again?

A. That both treatments were equally effective.

Q. Okay. And the second?

A. Is that it is a participation effect.

But the participation effect, you know, has never been shown with any children with cerebral palsy so far in any studies. And if it was a participation effect, how can you explain huge improvement, twice, three times, four times bigger than what we had with recommended therapies.

All those studies with recommended therapies had all participation effect probably but that accounts for a very small improvement and still in the Collet study there might be a participation effect that could not be accounted -- that could not be accounted for, the whole progress that is much faster than any other recognized therapy.

Q. A lot of your patients are receiving hyperbaric oxygen therapy, a lot of your CP patients are?

A. Yes.

Q. And how do they do with that?

MR. OLDENBURG: I am going to object to the relevance of that, Judge.

THE COURT: Response?

MR. ROSETTI: Well, I think his response will be relevant to the extent that I think it goes to --

we are talking about pain for hyperbaric oxygen therapy here in Georgia. I would like to see how all of these individuals --

THE COURT: I think I'm going to sustain the objection.

MR. ROSETTI: All right. I don't have any more questions.

THE COURT: Any recross?

MR. OLDENBURG: No, Judge. Thank you.

THE COURT: Thank you, Dr. Marois. You can set those there.

Mr. Rosetti, your next witness?

MR. ROSETTI: Will be Dr. Paul Harch.

Judge, can we take a five-minute break?

THE COURT: Surely.

(Recess taken)

MR. ROSETTI: Doctor, raise your right hand, please.

- - -

DR. PAUL G. HARCH,

being first duly sworn, was examined and testified as follows:

MR. ROSETTI: Please state your name.

THE WITNESS: Dr. Paul Gregory Harch.

CROSS-EXAMINATION