Direct and Cross Examination of Neurologist Mark Miller, M.D. in a Traumatic Brain Injury Case

May 4, 2018.

This is the redacted trial transcript of Mark Miller testimony in a case tried in April, 2018 in the Circuit Court of Fairfax County. This transcript includes the direct and cross examination of **Dr Miller,**, a local "sleep specialist" who was hired by State Farm to defend a case where a former lawyer claimed he sustained a brain injury due to a car accident.

This transcript may be valuable and important to lawyers who are facing Dr. Miller in a trial and we will be happy to provide the unredacted copy to those lawyers. (This copy does not have either our client or the young defendant identified. Neither deserved to have to go through this trial.)

Dr. Miller testified that all of the plaintiff's current symptoms were the result of long-standing severe obstructive sleep apnea. He had no opinion, however, on whether this prevented the plaintiff from working.

State Farm, who hired Dr. Miller to evaluate the plaintiff's medical records and testify against him, never offered a penny to settle the case.

The jury returned a verdict of $450,950. State Farm did not appeal the verdict.

Additional transcript from this trial is available at BrianInjuryTrialTranscript.com

Unredacted transcript and other information about Dr. Miller is available to plaintiff's attorneys from

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V I R G I N I A

IN THE CIRCUIT COURT OF FAIRFAX COUNTY

BARRY PLAINTIFF, Plaintiff, -vs- BENJAMIN T. DEFENDANT, Defendant.	CL-2017-0000832

Circuit Courtroom 4J
Fairfax County Courthouse
Fairfax, Virginia

Wednesday, April 18, 2018

The above-entitled matter came on to be heard before the HONORABLE RANDY I. BELLOWS, Judge, in and for the Circuit Court of Fairfax County, in the Courthouse, Fairfax, Virginia, beginning at 10:00 o'clock a.m.

APPEARANCES:

On Behalf of the Plaintiff:

JAMES S. ABRENIO, ESQUIRE
BENJAMIN GLASS, ESQUIRE

On Behalf of the Defendant:

HEATHER K. BARDOT, ESQUIRE

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C O N T E N T S

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E X H I B I T S

p.m., the jury returned to the courtroom and resumed their seats in the jury box.)

Whereupon

MARK MILLER

a witness, was called for examination by counsel on behalf of the Defendant, and having been duly sworn by the Clerk of the Court, was examined and testified, as follows:

DIRECT EXAMINATION

BY MS. BARDOT:

Q Dr. Miller, thank you for your patience. I'm sorry for the delay, but could you go ahead and state your name and business address for the jury, please.

A Mark Miller, 18101 Prince Phillip Drive, Olney, Maryland.

Q Can you please tell the jury your education, starting with medical school.

A Dartmouth Brown Medical School, residency Portsmouth Naval Hospital, fellowship at Walter Reed National Capital Area Program, including a year up at Bayview Hopkins.

Q And what was your fellowship at National Capital, what area?

A Pulmonary critical care and sleep.

Q How about your fellowship at Johns Hopkins?

A That was sleep.

Q What is your work history after completing your fellowship program?

A Navy for six years. That was at first all pulmonary critical care sleep, and then declining pulmonary critical care, all sleep essentially for the past 10 to 12 years.

Q In 2003 were you the director of the intensive care unit for USS Comfort?

A Yes.

Q And what did that entail?

A Eighty bed ICU, invasion of Iraq, running all the injured soldiers and sailors.

Q Are you the current medical director of the Sleep Center Medstar Medical Center?

A Yes.

Q How long have you been the medical director there?

A Since 2003 or '04.

Q Are you also the medical director of the sleep center for the Cardiac Care Associates?

A Yes.

Q That was since 2011?

A Yes.

Q Is it fair to say that your practice has been exclusively focused on sleep disorders since 2001?

A 2003 or '04. I did still a little pulmonary critical care for a few years.

Q So at least then for the last 15 years or so, your exclusive practice area has been sleep disorders?

A Yes.

Q With regard to sleep disorders, what areas do you focus on and in what percentages?

A Sleep disorder breathing, sleep apnea, about 80 percent; maybe 10 percent insomnia; 10 percent disorders of daytime alertness; a little bit of parasomnia is in there.

Q What's parasomnia?

A Activity during sleep, sleep walk, sleep talk, acting out a dream content, night -- nocturnal seizures.

Q What does it mean to be Board Certified?

A I took a special certification and ADI Board test. It's analygous to a pulmonologist boarded or cardiac care boarded.

Q What's the significance of being Board

Certified?

A It means you did special fellowship training and were able to pass the test and had significant training prior to that.

Q In what areas are you Board Certified?

A So I passed the exams in internal medicine, pulmonary critical care, sleep. Sleep's the one I continue with.

Q So is there actually a sub-specialty board certification for sleep medicine?

A Yes. You get there via internal medicine and then you go on to a fellowship in sleep. You can also get there via ENT, going on to do sleep. Psychiatrists can go on to do sleep. Mine was via ABIM.

Q Are you affiliated with any hospitals?

A Medstar Olney Hospital.

Q Are you licensed to practice in any jurisdictions?

A Maryland and Virginia.

Q Explain to the jury what the field of sleep medicine entails.

A Sleep medicine is primary clinical. I see patients, 20 to 30 a day, four or five days a week.

We do sleep studies, we treat patients for sleep disorder breathing, using a variety tools and medications for some problems. But no surgeries, so it's mainly clinical work.

Q You said you treat 20 to 30 patients a day, four to five days a week?

A That's correct.

Q Now, today you're appearing here in a forensic forum.

Do you understand that?

A Yes.

Q What percent of your case work is forensic?

A When I was active duty I was called as an expert witness for a couple of cases of active duty members, sort of criminal things.

Q How long ago was that?

A That was in 2003.

Q Would this be the first forensic case you've done in a private practice context?

A Yes.

Q If you would look in the white book right there, and look at Exhibit No. 2.

A Yes.

Q Is that your CV?

A Yes.

MS. BARDOT: I would offer that at this time.

MR. GLASS: No objection and no objection to him testifying.

THE COURT: It's in. There was no objection.

(The document referred to above was marked Defendant's Exhibit No. 2, for identification, and received in evidence.)

MS. BARDOT: I would offer him for formality as an expert in the field of internal medicine and sleep medicine disorders.

THE COURT: All right. No objection to that?

MR. GLASS: No, sir.

THE COURT: All right. He'll be so qualified.

BY MS. BARDOT:

Q Dr. Miller, I asked you to get involved in this case to examine the complaints that Mr. PLAINTIFF relates to the accident from the perspective of a medical provider who evaluates sleep disorders.

Do you understand that?

A Yes.

Q In order to conduct a thorough review of the case, what records did you review?

A So I reviewed the records of the primary care, Dr. Feola; the ENT, Dr. Abidin; the neurology, Dr. Kayloe; and the neuropsychologists, Dr. Kay and Wilken.

Q Did you also look at the emergency room records from Fair Oaks Hospital from the day of the accident?

A Yes.

Q Did you have big stack of records that consisted of two binders of subpoenaed records?

A It was 22 pounds.

Q Okay. You also reviewed the Plaintiff's answers to interrogatories?

A Correct.

Q And you also reviewed his deposition transcript?

A Yes.

Q And you also reviewed the deposition transcript of Dr. Feola so you could read his notes; is that fair?

A Yes.

Q They were pretty indecipherable?

A I have a little advantage over you.

Q Right. Are those the type of records which members of your profession would rely upon to formulate expert opinions in a forensic arena?

A I don't have any experience in forensics, but as a clinical doctor those are the records that I would need to manage patients.

Q After conducting your review of the materials that we've just identified, did you reach a conclusion to a reasonable degree of certainty in your field regarding the cause of the constellation of symptoms, the cognitive symptoms, which Mr. PLAINTIFF complains about in this litigation?

A Yes.

Q What did you determine to be the cause of those?

A Uncontrolled obstructive sleep apnea.

Q Can you explain to the jury what that is.

A So obstructive sleep apnea is a condition where the airway behind the tongue and the soft pallet is allowed to collapse down during sleep, obstructs the air flow.

It doesn't have to be a complete cessation of

air flow, just a reduction enough to drop the oxygen levels, which triggers a fight or flight response, heart rate up, blood pressure up, adrenalin sort of arousal to open the airway, followed by repetitive drifting off and occurring again.

Obstructive sleep apnea is defined as more than five an hour; severe obstructive sleep apnea, more than 30 an hour. So it's essentially at least every two minutes during the night having this event occur.

It's -- you know, it has a short and long term consequence. Short term, cognitive -- global cognitive functioning can suffer, executive functioning, frontal lobe functioning, organizational, short term memory, attention.

And long term is a three to five fold increased risk for stroke, heart attack, heart failure, diabetes, atrial fibrillation, dementia risks, so it has significant consequence and it's something that I work pretty hard to try and control.

Q So you just explained the different degrees of sleep apnea. You talked about severe and then just the general five per hour; correct?

A Correct.

Q Do you have an opinion with regard to Mr. PLAINTIFF as to where he falls on that spectrum?

A I would say severe.

Q How did you determine that he has severe sleep apnea?

A I had several objective sleep studies showing the AHI or Apnea Hypopnea Index being numbers greater than 30.

Q What does that tell you as a practitioner in this field?

A I describe all levels of sleep apnea as significant and should be managed. The mild cases tend to respond to most of the tools I can offer.

The moderate or severe, usually we're trying CPAP first, and the more severe usually correlates with more short-term symptomatology, higher risk, and hence more aggressive attempts on my part, working with the patient to try and get it under control.

Q Do you have an opinion as to how long Mr. PLAINTIFF has suffered from severe obstructive sleep apnea?

A Can I pull out a chronicle?

Q Yes, sir.

A So prior to 2006 it seemed to get a little

sparse in the records, but I would say back to at least 2006, prior to that there's some reference to studies and diagnosis, but I have no records to check, so I would say at least 10 years, and the earliest study I could find was from 2007 which showed 32 suffocating events an hour, nine oxygen levels dropping to 92, controlled with CPAP of 11 centimeters.

Now, I will comment that that was a split night study.

Q Tell the jury what that means.

A A split night study is not necessarily the optimal tool to describe the severity of sleep apnea. A split night study is more of a pragmatic approach to try and consolidate as much as we can in one night.

The patient comes in, the patient's hooked up. Two hours you watch him sleep. If you see any level of sleep apnea above moderate, you start the CPAP that night, get the CPAP level defined, the mask defined.

So you're not really apt with the split night to define with a good degree of certainty mild, moderate, or severe.

It's sort of binary in the first two hours, yes or no. If they've got it, go on and start titrating.

So it was at least severe at that point and --

Q Even with a split night study?

A Say again?

Q Even with a split night study?

A Correct. Correct.

And he's had three subsequent studies. One was a CPAP titration, but two more that had diagnostic pieces showing sleep apnea.

So short answer, at least 10 years.

Q Do you have an opinion as to what effect the pronicity of that condition has had on Mr. PLAINTIFF?

A Given that the risk factors for sleep apnea include age, and weight, the natural history of sleep apnea if it's left uncontrolled is that it worsens. The consequence in both short and long term worsens.

You know, unfortunately, some of the tools we work with, CPAP, are, you know, a bit of a psychological hurdle for patients to accept. And I often see patients after the first or second doctor, and things have declined to where they just can't compensate anymore. It's affecting workplace, home life, driving. They develop atrial fibrillation, diabetes, et cetera.

And it sort of forces the issues that they

have to be a little more serious about control. So the natural history is progression of sleep apnea and its consequence.

Q Is that what you saw in Mr. PLAINTIFF?

A From the records, that would be, yes. And

Q how does sleep apnea at Mr. PLAINTIFF's level affect the brain?

A So I would use the term global cognitive functioning can be detrimented. Sleep is important for brain functioning. Sleep is important for synaptic pruning, synaptic reorganization of the neurons. It's important for clearing of metabolic waste. It's important for getting rid of prion -- missfolded proteins, can lead to prion type analytic plaquing.

So sleep apnea, long term, uncontrolled has been shown to have decreasing global cognitive functioning, the domains I mentioned, arousal -- or alertness, organizational, mood, short term memory, by MRI gray matter loss occurs, long term dementia risk goes up.

I think -- can I leave it speaking to just neurological, and not get into cardiovascular?

Q Sure.

A Okay.

Q Do you see in patients such as Mr. PLAINTIFF who have sleep apnea for the length of time he has had, at the level he has had, any reports of headaches typically?

A Yes, headaches. So in the discussion I have with patients the short term things I'll describe are short term unrefreshed sleep, daytime sleepiness, morning headaches, dry sore throat in the morning, frequent wake ups for bathroom, all attributable in some respect to the sleep apnea. Treat the sleep apnea, all can be expected to improve.

Q Do you have an opinion as to whether Mr. PLAINTIFF suffers from that constellation of symptoms that you just described as a result of his sleep apnea?

A Yes. In going through Dr. Feola's notes, intermittently, you know, throughout there you will see decreased concentration, fatigue, memory loss, headaches, organizational problems, insomnia.

It was sort of a global scale we would use as a percentage. How are you feeling today? 70 percent, 80 percent. You could see as the years went on the numbers decreased to the few months before the accident it was down to the 50 or 60 percent.

Q And that would have been in the early part of

2015?

A Correct.

Q Does sleep apnea create a risk for other medical conditions?

A Yes. So increased risk for diabetes, hypertension, atrial fibrillation, stroke, heart attack, heart failure.

A lot of my patients come via cardiologists. And once the cardiologist gets involved the patient's usually rather incentivized to address the apnea.

Q As you reviewed this case did you formulate an opinion as to the severity of Mr. PLAINTIFF's sleep apnea in the period leading up to the accident?

A Well, the accident I believe was June of '15, and the most -- the study just prior to that was, you know, 2007, so there was a good amount of time where it was severe at that time.

Given that there was continued aging, no significant weight loss, his apnea would have been severe if not worse.

In September the diagnostic studies, you know, corroborated that he was still severe at that time.

Q Did you in fact look, I think you said, at Dr.

Abidin's records?

A Yes.

Q Who did you understand Dr. Abidin to be, or what did he do for Mr. PLAINTIFF?

A He's an ENT physician, otolaryngologist, specializing in doing surgical procedures for sleep apnea.

Q Did you note that he had been seeing Mr. PLAINTIFF several years back and that Mr. PLAINTIFF resumed his care with him in 2015?

A Yes.

Q Did you formulate an opinion from looking at Dr. Abidin's records from February of 2015 when he resumed care, as to what condition Mr. PLAINTIFF was in with respect to his sleep apnea at that point in time?

A Dr. Abidin felt the sleep apnea was significant. He offered him stimulants, he advised a sleep study, and proceeded on with more surgery.

Q What surgeries do you understand that Mr. PLAINTIFF has had to try to address his sleep apnea?

A Starting in 2006 I saw notes for a septoplasty turbinate reduction, which is all surgeries addressed at the nose, straightening the septum, shaving it down, reducing the turbinate size.

But this is not a sleep apnea surgery. Sleep apnea is back of the throat, behind soft pallet, behind tongue. This procedure, you know, it doesn't address sleep apnea. It can be for breathing problems during the day.

Subsequently, in 2007 he had the uvulo palato pharyngo plasty, UPPP. This is the most commonly performed surgery for sleep apnea.

Dr. Abidin included a hyoid suspension. This procedure is basically cut out the uvula that hangs down the back of the throat, trim off soft palate based on tonsil material if it's there, and then pull the hyoid bone up forward to try and -- all reduce the mass of the soft tissue in the back of the throat, and try and support the airway.

Q Did you form an opinion with respect to that surgery as to whether or not it was effective in addressing the severe sleep apnea Mr. PLAINTIFF had?

A So it was ineffective on --

Q How did you know that?

A A subsequent sleep study showing continued sleep apnea, and Dr. Abidin advised to restart CPAP.

Q Did Mr. PLAINTIFF comply with that?

A Efforts I believe have been made over the years, but compliance is rather objectively defined as 70 percent of the nights more than four hours, and at no point did I see a self report of those numbers, and at no point did I see any compliance download from his CPAP at all.

Q What's a compliance download? What do you mean by that?

A So the CPAP machines offer the ability to generate a report at the office visit where you can see night by night, breath by breath, what the patient's breathing is doing during the night.

It's used both as a marker of compliance, but more importantly, it's used as a tool to modify pressure, mask fittings, and improve compliance.

Ten or 20 years ago it was sort of, "Here's your CPAP, good luck." That's not the case with CPAP treatment. Most of my effort is in reviewing these reports with patients and assisting them towards compliance, because CPAP remains the most effective tool for sleep apnea.

Surgeries are a distant second, and the ENT doctors are aware of this and are very up front with

patients that -- and insurance companies won't pay for the surgeries until you've tried CPAP first.

Q So you did not any see any compliance download data in Dr. Abidin's records or anywhere throughout the records?

A Correct.

Q So then he has a UPPP, tonsillectomy, and you said there was a third surgery?

A Yeah. In 2016 he had a midline glossectomy, which is, you know, trying to reduce the base of the tongue mass; again, attempts to try and reduce soft tissue in the --

Q Was that surgery effective to address the sleep apnea and the constellation of cognitive symptoms related to that?

A No. Sleep apnea persisted.

Q Do you have an opinion regarding the nature and extent of the care -- let me restate that.

Do you have an opinion as to whether it was normal, extraordinary, anything else, this course of treatment, to try to address the sleep apnea through surgery?

A I think it's --

MR. GLASS: Objection. That's irrelevant.

THE COURT: What's that?

MR. GLASS: That's irrelevant. What he's heading into is whether Dr. Abidin properly treated him or not.

THE COURT: All right.

MR. GLASS: That's irrelevant.

MS. BARDOT: I'm not asking whether he properly treated him. I just want to know if this is a lot of care to try to take care of a patient. It goes to the extent of the sleep apnea and how severe it was.

THE COURT: All right. The objection's sustained.

BY MS. BARDOT:

Q Inasmuch as these surgeries were not effective, what was done that you observed to try to address the ongoing sleep apnea problems?

A Sorry. What was the question?

Q Sure. Inasmuch as the surgeries were not effective --

A Correct.

Q -- what did you observe being done to try to address the sleep apnea?

A Oh, okay.

So most of the office visits by both Dr. Feola and Dr. Abidin included, "Patient advised to use his CPAP more," and both of them also started offering stimulant medication to support his cognitive functioning.

Sleep apnea is managed by controlling the airway during the night so that repetitive suffocating events don't occur.

Stimulant medications are a crutch to treat a symptom without addressing the underlying sleep apnea. Stimulants are only appropriate if the underlying condition is controlled. If the underlying condition isn't controlled you'll get into dose escalation and eventual failure of stimulants as the condition progresses.

Q Did you see that dose escalation and failure that you just described as it pertains to Mr. PLAINTIFF?

A Yes. It was I believe five if not more, different stimulants: Nuvigil, Provigil, Vyvanse, Adderall, Ritalin, increasing dose of each. They failed to control symptoms, switch to something else.

And again, the underlying sleep apnea remained uncontrolled.

Q Do you have an opinion as to whether that course of treatment was -- had any impact on Mr. PLAINTIFF's cognitive performance?

A So stimulant medications will crutch cognitive functioning temporarily. If you don't control the underlying sleep apnea, as I said, you'll have persistent decline and organ damage to the brain, heart, and lungs because of the repetitive desaturations throughout the night. So the crutch will fail.

Q Do you have an opinion as to whether that occurred in this case?

A Yes.

Q And do you have an opinion when that crutch failed?

A I think his crutch -- the stimulants continue to fail, progressing -- you know, I don't think there's a specific time that it failed. It's been a slow natural progression of the consequence on his cognitive functioning.

Q You've mentioned sleep studies and you've mentioned he had a couple.

I think you mentioned he had one in September 2015. That would have been before his glossectomy that

occurred in February of 2016; correct?

A Correct.

Q Was that the split night or was that something different?

A The September of '15 was a polysomnogram, the whole night dedicated to just watching his sleep, getting a good sense of the level and the distribution of suffocating events during the stages of sleep body positions, et cetera.

Q Does that capture both REM sleep and non-REM sleep?

A Correct. His REM sleep is -- REM sleep usually occurs in the latter half of the night. REM sleep is associated with skeletal muscle paralysis, so that's usually where we're seeing our worst sleep apnea.

So a full night polysomnogram is going to get the best sense of how bad the apnea is, and at that point it was severe, 32 an hour, decreased to 82 percent.

Q And then he had the sleep study on March 24, 2016, after he had the glossectomy; correct?

A Correct.

Q And that would have been the split night that you described?

A Correct.

Q And that would not measure REM based on what you just said; correct?

A He had no REM during that diagnostic two hours.

Q Did Mr. PLAINTIFF have by history the same sort of sleep apnea problems during REM versus non-REM?

A No. The records that I was able to see, REM versus non-REM, showed his REM was three times as bad as his non-REM for number of suffocating events an hour. And that's pretty typical.

Q Are you able at all to make a comparison between the September 4, 2015 -- I'm sorry -- yeah, September 4, 2015, sleep study, which was the split night, and the one that was done on March 24, 2016, or are they not comparable?

A So the March of '16 was the split, the September of '15 was the diagnostic.

The diagnostic study in September of '15 was the best assessment of underlying level of sleep apnea. The March of '16 was the split, and the two hours was not a sufficient sampling of no mask on to get a good -- it basically showed sleep apnea. That was enough they

started CPAP.

Q Do you have an opinion whether there was any significance in his sleep apnea between these two sleep studies?

A I can't say. The sleep apnea remains significant. The sleep apnea was not assessed at an accurate level with the study in March of '16.

But it's irrelevant in that the level was sufficient to begin CPAP, CPAP showed good control, and treatment with CPAP was the appropriate indication at that point.

Q So when Mr. PLAINTIFF used a CPAP, and I know you said he was not compliant with it, do you have an opinion on its effectiveness for him?

A Oh, yes. So like the split in '16, which is the most recent sleep study, they did start CPAP two hours into the night, and they modified the settings to a pressure of 12, which is not too high -- it's kind of midrange -- and it brought his suffocating events down to 1.5 per hour.

Q That's a significant decline?

A So the goal -- 32 is where his baseline was. That's severe. The goal is to get him down less than

five, and 1.5 would be good.

Q Do you have patients who are simply intolerant to CPAP?

A Yes.

Q What do you do with those patients?

A The four groupings of management I'll discuss with patients. One is going to be some sort of breathing device. Now, that could be CPAP, BiPAP, ASV, there's different modes of ventilations. The techniques have gotten much better with the machines, 30 or 40 different masks to work with.

I will work with them in part to try and make some combination of mask and machine work, because it is the most effective. It will get them down to one, two, three times an hour.

If they are unwilling -- and I have patients just unwilling -- I'll look at Options 2, 3, or 4, the second being mouth guards.

Mouth guards can be used to treat sleep apnea. It's fashioned with one piece on the upper teeth, one on the lower, the two connect, pull the jaw forward, base of the tongue attached to the jaw so it's sort of tethering that tongue forward during sleep.

Dentists make these. They tend to work best in the milder cases, non-obese side sleepers. So that will be a discussion.

Weight loss. Weight loss is a big way to make improvement in sleep apnea. So either some of these ideal protein, you know, or doctor-guided weight loss. I don't do any of these programs myself, but the weight loss can be effective to the extent where -- when you consider the last option, the surgical options.

More and more the bariatric procedures have become more effective, less risky. Those are the weight loss surgeries. Weight loss surgery by, you know, review, studies show about 70 to 80 percent effectiveness at treating sleep apnea.

Now, that's in contrast to the UPPP, the most common ENT procedure, back of the throat, which is about 50 percent.

So weight loss, dental device. It's pretty uncommon that I'm having patients get the procedures that have been described here.

I will have septoplasty and turbinate reductions done on patients for the point of improving airflow through the nose, so they can tolerate smaller

masks that just cover the nose. But it's been rare that I've sent a patient for any of these other ones.

Q Have you in your clinical practice had patients with sleep apnea at Mr. PLAINTIFF's level who complain of the constellation of symptoms that he complains of in this case, or is this unusual?

A He's at the severe end, but probably 15, 20 percent of the patients -- new patients I'll take in will be similar to this.

Q What have you done to make the determination that you believe that the constellation of symptoms that he has been reporting in this litigation are related to his obstructive sleep apnea and accumulative effect of that rather than let's say a brain injury or something else?

A So I think that the first diagnosis he had was sleep apnea. It's an objective diagnosis. It's defined with a sleep study.

Sleep apnea is associated with all of these constellations of symptoms, and it should be effectively managed to see improvement in these symptoms.

He was never effectively controlled with a CPAP device and the surgeries didn't work.

Along the way ADD seemed to have been added in. I don't have expertise in ADD, but sort of by outcomes raised, that if you have your symptoms explained by one diagnosis, controlled with one diagnosis, don't just start adding diagnoses to confuse the situation.

So sleep apnea explains all of these symptoms. Controlling the sleep apnea can improve, but if sleep apnea is left uncontrolled there can be irreversible changes, as I mentioned, gray matter loss in the brain is one of these, heart attacks, heart failure. So control of sleep apnea is what you want.

Q Based upon your review of this case, do you have an opinion regarding whether or not Mr. PLAINTIFF is capable of performing full-time work as an attorney?

A I don't -- I don't think I can -- he has the symptoms I commented on. He's taking stimulants to try and compensate for them. Whether or not he can perform as an attorney is not really my expertise.

Q Okay. Fair enough. Thank you.

THE COURT: Okay. Cross.

MR. GLASS: Yes, sir.

CROSS EXAMINATION

BY MR. GLASS:

Q Hi, Dr. Miller.

A Hello.

Q So you're not able to say that the obstructive sleep apnea, the history of severe OSA, has anything to do with whether or not he can perform as an attorney; correct?

A I don't know at what level of cognitive dysfunction he can perform as an attorney.

Q Right. So you think he has cognitive dysfunction; correct?

A From record review it was shown.

Q Right. Because you didn't see and you didn't examine Mr. PLAINTIFF; right?

A Correct.

Q You talked about MRI and gray matter, but we know the MRI was normal in this case; right?

A That was for -- yes, correct.

Q You talked about cardiologic, but this is not a cardiology case; right?

A Hypertension.

Q Would you expect that -- and you described

this constellation of cognitive symptoms that he has; right?

A Yes. Dr. Feola's notes said decreased concentration, fatigue, memory loss, headaches, organizational problems, and insomnia.

Q And he worked right up to the date of the car accident with all of that; right?

A I'm not aware of how well he worked or worked up -- medical record review.

Q Okay, right. So on the occupational side, in terms of what he did for a living, how many hours he worked, how good he was, what his love for the job was, that sort of stuff, you have no idea?

A That's fair to say.

Q Your constellation of cognitive symptoms, I tried to write fast -- alertness, short-term memory issues.

What else was there?

A Was this from Dr. Feola's notes or --

Q No. You used the phrase constellation of symptoms.

A So global cognitive functioning, I think would include domains of attention, alertness, short-term

memory, judgment, executive functioning, organizational, mood. I mean the whole brain suffers.

Q His whole brain suffered in your view because of his long-standing obstructive sleep apnea; right?

A Yes.

Q So you would not expect, would you, a neurocognitive report that describes him as extraordinary in terms of his brain?

A I think it depends on where you start out. Decline can start high and not become compromising in functioning for quite some time.

Q Are you able to tell us where along this time line the symptoms that you say derived from obstructive sleep apnea prevented him from working?

A I can't say when he was unable to work. I can comment on the stimulants that were used for years prior to supplement his cognitive functioning, but I can't say when he was unable to work.

Q And you're not a neurologist, so you really can't help us too much on mild traumatic brain injury, things like that; right?

A Well, I was involved in the head injury center at Walter Reed. The National Intrepid Center of

Excellence, when it got started up they needed a sleep doctor as part of the evaluation of all the head injury patients coming in, so I was involved in that.

Q But you have not been asked in this case to look at this case from a perspective of, did he suffer a mild traumatic brain injury in this car ancient?

A I would say I was asked to comment on his sleep, correct.

Q Correct. However, the car accident is not totally unrelated to his, in your words, sleep apnea symptomatology; right?

MS. BARDOT: Object to the form. I don't understand that question.

THE COURT: Overruled.

THE WITNESS: What does overruled mean?

BY MR. GLASS:

Q Let me ask a better question. Good for you for asking that question.

Your report -- and it's not paginated, at least the version I have -- talks about how some of the things from the car accident, some of the treatment he got, worsened his sleep apnea symptoms.

Do you remember that?

A Yes. The stuff that I wrote.

Q Yes.

A Is that in here that I can look at it?

Q Absolutely. In fact -- well, let's see.

A Do you know the number?

Q It's not paginated.

A Oh.

MS. BARDOT: Your Honor, is that published to the jury?

THE COURT: That's not published to the jury.

MS. BARDOT: Okay. I just want to make sure, because I don't know what we're doing.

BY MR. GLASS:

Q Do you recognize this as a page from your report?

A Oh, yes.

Q Go ahead.

A So I think the first sentence where I said, multiple reasons could have contributed, but I want to emphasize as you outline there, beyond the inevitable, natural progression of his underlying obstructive sleep apnea.

I think that's paramount. Other things can

contribute to quality of sleep. If he was taking narcotics, that can worsen it. He was prescribed them. I don't know if he took them or not.

He was prescribed oxygen. Oxygen without CPAP can worsen it as well.

Q You don't know whether he took that or not either; right?

A I don't know if he took that or not.

The insomnia. If you were to add insomnia on to, you know, obstructive sleep apnea it's going to cause worsening of that.

So I think -- I wanted to emphasize that this was inevitable, natural progression. If you want to invoke potential other things, these are potential things that I would address as a doctor managing it.

Q But you're not here to tell us and you have no opinion as to where this inevitable, natural progression, as you call it, would reach the point where he's no longer capable of working in his lifetime occupation as an attorney. You're not here to say that.

A No. I would not draw -- I wouldn't draw the line where that decline is -- where he can't work.

I would say the decline is there, it's long,

it's prolonged, it's been supplemented with stimulants, but where that line is, I don't know.

Q Do you even know if he's crossed that line today -- by today, that is whether the symptoms that you relate to obstructive sleep apnea are the cause of him not being able to work today?

A I have no comment if he can work or not.

Q Thank you.

THE COURT: Redirect.

MS. BARDOT: Very briefly.

REDIRECT EXAMINATION

BY MS. BARDOT:

Q Dr. Miller, you reached your opinions in this case independently, without reviewing expert opinions from Dr. Kay or Dr. Tuwiner; correct?

A Correct.

Q And you have no opinion on whether he can or can't work, or if he will in the future be able to work or not work? You just didn't address that point; correct?

A Correct.

Q Do you have an opinion as to whether his work would be affected if he got his sleep apnea under control?

MR. GLASS: Objection. Based upon his prior

answers that's irrelevant. Since he doesn't have the first opinion, how could he have the second?

MS. BARDOT: I'm asking an entirely different question. He's got sleep apnea. I'm asking if he got it under control, do you have an opinion as to whether his ability to work would be affected at all.

THE WITNESS: His cognitive --

THE COURT: Wait. I haven't ruled on the objection.

THE WITNESS: Oh, all right.

THE COURT: Overruled, which means you can answer it.

THE WITNESS: So I think that controlling his sleep apnea compliant with CPAP would improve his symptoms.

BY MS. BARDOT:

Q Would he then have any limitations on his ability to work, or do you not have an opinion on that?

A I can't comment. I'll say he can improve his symptoms by controlling the sleep apnea. Whether that puts him on a level to work --

Q Is for someone else?

A Yes.