

Neurology Second Opinion (extended plus consultation)

Patient: xxxxxxxxxxxx

DOB: 12/18/1965

DATE: 03/11/2014

Discussion, analysis and recommendations:

Thank you for allowing me to review your medical records. I have completed reviewing your personal statement which included details about your motor vehicle accident and the symptoms that you've had since the accident. I have also reviewed the MRI and tensor imaging reports that you submitted and also very thoroughly reviewed the EEG that you had provided.

I've had a chance to treat many patients who have complained of symptoms similar to yours after a motor vehicle accident. Clearly, it was a very severe impact as the MRI reports are suggestive of diffuse axonal injury. This is essentially an injury to the brain matter that is secondary to shearing forces that tear very delicate brain tissue during a head trauma. Patients who suffer from this kind of an injury very commonly complain of problems with tasks that require concentration. Loss of memory or a reduced ability to remember are also commonly seen. Patients often feel absentminded and they often forget what they were doing or why they went into a particular room or a particular place. They also complain of severe headaches as well as periods of depression. I've also had patients who have presented to me with the complaint of acalculia, or the inability to compute numbers after a concussion. It can take several weeks to several months for patients to recover from post-concussion syndrome. I commonly advise my patients to take things slowly. If they make effort to return to their routine activities too quickly, they will begin to have severe headache and fatigue. Gradual return to a normal routine is the best course of action. I will also often advise patients to take Pamelor 25 mg at bedtime with increased dosing as needed. Pamelor is a tricyclic antidepressant that is commonly used to treat headaches. It is taken at bed time as it causes sleepiness and therefore makes it easy for someone to fall asleep. Many patients with post-concussion syndrome suffer from insomnia. Taking Pamelor often helps with this. You might consider asking your neurologist or primary care physician to prescribe this medication.

On reviewing your MRI reports, the radiologist has clearly noted lesions in the sub-cortical white matter are most likely related to your head injury. As was mentioned earlier, diffuse axonal injury can cause the type of lesions that are noted on the MRI. You should also be aware that you also have significant sinus inflammation and evidence of inflammation of your left mastoid bone (mastoiditis). *This is something that needs to be brought to the attention of your primary care physician as it may require treatment with antibiotics. Not seeking further evaluation may lead to more severe complications.* Furthermore, with regard to the MRI lesions, some lesions were noted to be located around the openings in the brain that carry cerebrospinal fluid (periventricular). These types of lesions can be commonly seen in patients who have a history of high cholesterol and/or high blood pressure. As such they are not likely to represent lesions from the head injury. It is entirely possible that they were there prior to you having the motor vehicle accident.

The findings of the diffusion tensor imaging where the abnormal FA was noted are also suggestive of diffuse axonal injury which is commonly seen in patients who have a concussion. The most common

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regions where diffuse axonal injury can be seen includes the frontal, occipital and temporal lobes. It can also be seen in the brainstem if the injuries are extremely severe and the patient was noted to have an intracranial hemorrhage as a result of the brain trauma. In your case, it appears to be limited to the frontal lobe. I suspect that with time, these lesions will improve.

In your personal statement, you mentioned that you have been noted to have shakiness or jerkiness that is constantly present and is often pronounced when awoken from sleep. These symptoms are again something that is to be expected as your brain recovers from this trauma. Patients who are on Pamelor typically complain less about the shakiness. Finally, I had a chance to thoroughly review your EEG. The method that the EEG technician followed is standard at every EEG lab. The flashing lights (photic stimulation) and having you breathe in and out fast (hyperventilation) are also methods that are used to trigger seizures. From my review of your EEG, there is no evidence of any electrographic seizures as a result of the hyperventilation or the photic stimulation. Based on the rhythm that I see toward the end of the EEG, you are noted to be sleeping. My impression for the reason that you had the jerking of your leg at the end of the EEG is because you were coming out of a state of sleep. Muscle jerking is commonly seen either when going to sleep (hypnogogic) or when waking up (hypnopompic) and does not represent seizure activity. Based on my review of your EEG there does not appear to be any electrographic evidence of seizures or any kind of focal abnormality.

Patients who suffer from post-concussion syndrome commonly have problems with functioning normally immediately after the injury and may continue to have these problems over the next few weeks to several months. With time, the symptoms do improve, but require significant patience. Undergoing the neuropsychiatric testing will give more insight to you and your neurologist about areas of your brain that will require time to recover and it will help your neurologist decide on the best plan of care for you.

I hope that the above has been helpful to you. Thanks again for allowing me to participate in your care. Sincerely,

Amit M. Shelat, D.O., M.P.A., F.A.C.P
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The above report was provided by the signing physician at the request of the referring physician, patient or patient representative as a second opinion. The opinions and recommendations included therein are provided on a strict advisory basis and are based on the images and clinical information provided. Neither the radiologist nor the company assume responsibility for any decisions made or actions taken based on this report nor for any effects that result from such decisions and actions. The responsibility for clinical decisions remains entirely upon the patient's medical team. This information has been clearly communicated at the time of request of this second opinion.

-Electronically Signed by: , D.O., M.P.A., Board Certified Neurologist on 03/12/2014 12:35:10 AM

