Colossus to the Courtroom-Part 2

In my previous article, I introduced the two main categories and the continuum of settling cases which I called "From Colossus to the Courtroom." In the last article I focused on the Courtroom aspect of settlement, which most personal injury attorneys are always cognizant of when they decide whether a new case will be successful if it happens to go to trial. One of the important aspects of whether to accept the case is whether you have a doctor who has credentials and knowledge that can act as an expert witness should the case go to trial to demonstratively show and clinically correlate causality to bodily injury and persistent functional loss inclusive of impairment.

Since at least 99% of lawyer's cases are settled before the Courtroom, it behooves the personal injury lawyer to thoroughly prepare for that likely eventuality. According to multiple sources, Colossus or CPEC (computer programs to evaluate claims) utilized by the insurance carriers are based on four main categories and percentages as follows:

1. **25% - Neurological damage** -inclusive of disc injuries.
2. **25%- Whole Person Impairment**- based on the AMA Guides to Evaluation of Permanent Impairment (5^{th} or 6^{th} edition).
3. **25%- Duties under Duress- (functional loss)**
4. **25%- Loss of Enjoyment of Life- (functional loss)**

It is very important to note, that if you do not have any Whole Person Impairment, then you cannot have functional loss which includes duties under duress and loss of enjoyment of life. Consequently, having Whole Person Impairment unlocks 50% of the total value of settlement claims. Today I will focus on Neurological Damage which is 25% of settlement claims.

Neurological damage

Nerve damage is a common injury that can occur after motor vehicle accidents and can cause injuries to the head and brain, which can be classified as a traumatic brain injury (TBI) and concussions. There can be injuries to the spine including flexion/extension injuries known as whiplash. These injuries can lead to neuropathy and radiculopathy which include numbness and tingling and loss of sensation in the arms, hands, legs and feet. These also can lead to pain which is a burning stabbing or shooting pain which also can be a sign of nerve damage. Headaches and occipital neuralgia can be caused as well as migraine and traumatic headaches.

Furthermore, there can be symptoms such as dizziness (vertigo), visual disturbances, and vestibular (balance) issues. Also, traumatic injuries to the neck and back can lead to herniated discs which can be another cause of radiculopathy, neuropathy, and myelopathy. Myelopathy is defined as a compression of the spinal cord with the ensuing clinical signs and symptoms at and below the level of the spinal compression. It is important to accurately diagnose neurological damage caused from accidents which sometimes can be difficult to detect because they're not visible and the symptoms can vary in severity. Obviously, after a motor vehicle accident, it is

important to triage with a CT scan and/or an MRI scan if there's suspicion of a fractured skull which may cause intracranial bleeding.

If a patient in a motor vehicle accident (usually after a traumatic brain injury- TBI) has subsequent hearing loss, there may be damage to the inner ear, brain or brainstem. To accurately diagnose hearing loss, we utilize a **BAER (Brainstem Auditory Evoked Response) test** which is used to detect some types of hearing loss due to injuries that occur affecting the nerves involved in hearing. In this test electrodes measure nerve signals in the brain when it reacts to sound.

If there are visual issues after the motor vehicle accident, we utilize the **VEP (visual evoked potential**) **test** which can help diagnose nerve related visual conditions due to head or brain trauma. The VEP test measures the electrical activity of the visual system by recording how the brain responds to visual stimuli.

Two other tests utilized to measure the function of your nerves in your brain are the **ENG (Electronystagmography) and the VNG (Videonystagmography) tests**. These two tests are part of a comprehensive evaluation to detect pathologies within the vestibular (balance) system. In the ENG test, electrodes are placed around the eye to measure the vestibular ocular reflex. In the VNG test infrared glasses are placed on the eyes to allow monitoring of the vestibular ocular reflex. The goal is to determine if you have the nystagmus, which is involuntary eye movement which may cause the eye to rapidly move from side to side, up and down, or in a circle, and may cause blurry vision.

The **EMG/ NCV (electromyography and nerve conduction velocity**) tests are the gold standard to determine if there is radiculopathy and or neuropathy which can be caused by accidents. These tests are used to accurately diagnose either a specific spinal level where there is radiculopathy or a localized neuropathy in the elbow, wrist, hand or knee, ankle or foot in the lower extremity.

The MRI (magnetic resonance imaging) diagnostic study is very helpful to determine if there is a herniated or protruded disc (due to trauma) consistent with the examination findings and mechanism of injury of the motor vehicle accident. Herniated discs can lead to radiculopathy, neuropathy, and in the worst-case, myelopathy which is caused by total compression of the spinal cord or cauda equina. It is very important when having the MRI performed to have the correct slice thickness protocols for every sequence so as not to miss a herniated disc or other pathology. Furthermore, in my opinion,MRIs should be read initially by a neuroradiologist, who have an extra year of studying brain and spine images on MRI and have much more experience in proper diagnosis of the morphology of the disc than a general radiologist. As I have stated before, general radiologists miss at least 43.6% of disc pathology based on the 2017 article in the Spine Journal. (1)

Also, since I am MRI qualified, I personally review the MRI images of the spine and if I detect a herniated/protruded disc that was missed by the radiologist, I will inform them and usually they will make an addendum to the report adding the missed pathology. Furthermore, to demonstrate the causality of the herniated disc to a motor vehicle accident, we can **age date herniations to** contemporaneously corroborate the herniation with the date of the accident. To visually

demonstrate the herniations for the carriers and in court (for the judge and jury) we can colorize these herniations making it very easy for the layperson to visualize.

Summary

25% of claims based on CPEC (computer programs to evaluate claims) are based on neurological damage and sequelae from the accident. As described above, residual neurological damage caused by motor vehicle accidents are a result of traumatic brain injury, concussions, flexion extension injuries, and blunt trauma to an affected body part. This trauma can lead to the following neurological symptoms as follows; vertigo/dizziness and vestibular issues including loss of balance, hearing loss including tinnitus, visual disturbances, migraine headaches and optic neuralgia, radiculopathy, neuropathy, myelopathy and a myriad of other disorders from post-concussion syndrome.

In order to diagnose some of these neurological disorders we utilize diagnostic methods which include the following tests**: BAER, VEP, ENG, VNG, EMG/NCV, CT, & MRI**. These tests give us objective evidence that the trauma caused the residual neurological symptoms.

With respect to MRI's, it is important to be able to age date the herniations to refute the carrier's deceptive rhetoric that says all herniations are preexisting. Also, it is important to be able to visually demonstrate the herniations by colorizing the MRI images to send to the carriers with the demand letter and especially when going to trial which makes it easy for the jury to see and connect with the injury in question.

It is important to realize that neurological damage inclusive of discs is only 25% of the total settlement. In my next topic, I will discuss Whole Person Impairment which does not require neurological damage inclusive of disc herniations. As stated above, you must have Impairment-expressed as Whole Person Impairment as described by the AMA Guides to Evaluation of Permanent Impairment to unlock the additional 50% of settlement offers which are functional losses. Simply said-no Impairment equals no functional loss.

Reference

1. Hertzog, R. Elgort, R. D., Flanders, E. A., & Molly, J. P. (2017), *Variability in diagnostic error rates of 10 MRI centers performing Lumbar Spine MRI examinations on the same patient within a three-week period. Spine Journal, Apr. (4), 554-561*