Topic #4

Diffusing Deceptive Rhetoric from Insurance Companies

As indicated in topics 1-3, insurance carriers in many instances use deceptive rhetoric unjustly to lower settlement offers based on our demand letters. Topic 4 has similarities to the deceptive rhetoric topic 2 which is "All Disc Bulges/ Herniations on MRI are Pre-Existing." The deceptive rhetoric in topic 4 is as follows:

Pre-Existing Arthritis Indicates Current Injuries are also Pre-Existent

1. Degenerative Joint Disease/ Osteoarthritis/Spondylosis

Osteoarthritis/degenerative joint disease affects the joints of the body and spondylosis is a general term for wear and tear in the spine. We will discuss degenerative disc disease under 2.

A. Green twig/ Brown twig metaphor

For example, if you pull a green twig from a healthy pine tree and put it on the ground and jump on it; there might be a little bit of damage, nevertheless it will usually be able to "bounce back" to its original shape with some "manipulation." However, if you pull a brown, dried twig from a pine tree and jump on it there will be significant "breakage" of this twig, and it will never be able to regain its original form.

Moreover, it has often been said that if a patient (or client) in a Motor Vehicle Accident (MVA) has pre-existing arthritis (Degenerative Joint Disease/Spondylosis) then the ensuing bodily injury was most likely pre-existing. This could not be further from the truth. For a human example, if a 25-year-old bodybuilder and an 88-year-old man who is 4 '8" tall and riddled with arthritis are both in the same car accident, who will be hurt more, the bodybuilder with no arthritis or the older person with a significant amount of arthritis. The answer of course is the 88-year-old man with a significant amount of arthritis.

In fact, in Newgard's 2008 research article, "Defining the Older Crash Victim, the Relationship Between Age and Serious Injury and Motor Vehicle Accidents," he reviews research by Rao et al. (2005), Ehara et al. (2001), Kaale et al. (2005) and Regenbogen et al. (1986) who all conclude that "pre-existing arthritic degeneration causes more bodily injury than a person with no arthritis" in motor vehicle accidents. (1)

Moreover, we further find in a rear impact victim without arthritis there may be nerve compression. However, when there are spondylolytic changes (arthritis) in the foramina (hole between the vertebrae), "the injury risk greatly increases and spreads to include both multiple cervical ganglia (bundles of nerves), and nerve roots." This was concluded by Panjabi et al. (2006) who also concluded that "these injuries may lead to permanent structural damage causing chronic radicular symptoms." (2) Radicular symptomatology includes pain as well as weakness and numbness in the upper extremities. Furthermore, since spondylolytic changes in the foramen are present in most forms of arthritis this is a very common finding.

Similarly, as referenced in topic 3 in Hijioka et al. (2001) in their research titled "Risk Factors for Long Term Treatment of Whiplash Injury in Japan; Analysis of 400 cases" the authors established pre-existing arthritis predisposed trauma victims to increased injury and prolonged treatment time by stating" degenerative changes occur more frequently with increasing age, and these changes disrupt early tissue repair."

2. Degenerative Disc Disease, Trauma and Pain

In topic 2, we discussed in detail information pertaining to disc bulges/herniations on MRI. However, there is more to the story of degenerative intervertebral discs and how trauma can activate the disc itself to have increased pain. In a study by Edgar (2007), he states the following: "sensory nerve endings in the degenerative lumbar disc penetrate deep into the disrupted nucleus pulposus, insensitive in the normal lumbar spine. Complex as well as free nerve endings would appear to contribute to pain transmission" this has significant implications on the understanding about how clients with degenerative disc can be injured with less trauma than those with healthy discs. (4)

Additionally, scientific research has shown that the disc has nerve fibers that carry pain sensation embedded from the edges into the outer 1/3 of the annulus fibrosis. This is a major reason that injury to the disc causes pain resulting in persistent functional losses. Indeed, in a paper published by Freemont et al. (1997), they found that when degenerative discs at the level of pain were examined there was a greater number of pain nerves deep into the disc when compared to healthy controls. The authors also concluded that these nerves are not activated until there is a pain generating event. That is why a previously asymptomatic degenerative disc can be activated by a single distinct traumatic event.

Finally, an article by Garcia-Cosamalon, et al. (2010) reviewed the scientific literature in relation to how pain is generated in an intervertebral disc with particular attention paid to degenerative discs. On page 1 of this article, they state the following: Nevertheless, in human degenerative intervertebral discs as well as in animal models of IVD degeneration, the number of nerve fibers in the IVD increased. The authors also affirmed that "a damaged IVD releases nociceptive (pain generating) molecules and growth factors that promote nerve ingrowth into the discs." These concepts have implications for traumatic injury to the degenerative disc as well as trauma resulting in injury to a healthy disc. In other words, in healthy discs that are injured, the accelerated

degenerative process has long term consequences as the disc will degenerate faster and acquire additional nerve fibers.

In simple terms, even if there is not an acute herniated disc after a crash, you can have significant increased pain at the level of a degenerative disc after one traumatic event, due to ingrowth of the nerve fibers into the nucleus pulposus which can lead to impairment. To evaluate impairment, I utilize the DRE methods for the cervical, thoracic and lumbar spine on pages 384-392 of The AMA guides to the Evaluation of Permanent Impairment. You do not have to have a herniated disc to have spinal impairment based on the research outlined above. It is also important to note that in settlement cases you must have an impairment to access 50% of the value of a case which includes functional loss/loss of enjoyment of life/and duties under duress.

Discussion

Pre-existing degenerative joint and disc disease in many cases have little or no symptomatology. There are also many scenarios where degenerative joint and disc disease is managed conservatively with chiropractic, acupuncture, and exercise as well as medications provided by their physicians minimizing the impact on their activities of daily living.

To assume the deceptive rhetoric that *pre-existing arthritis indicates that current injuries are pre-existing* is nonsensical. As we see by the research performed by Newgard, Punjabi, and Hijioka, pre-existing degenerative joint disease/spondylosis in patients/clients involved in motor vehicle accidents leads to more bodily injury, structural damage, and prolonged treatment times when compared to "healthy" accident victims.

Furthermore, in accident cases where the patient/client has pre-existing degenerative discs, many times they are asymptomatic prior to a traumatic event such as a motor vehicle accident. In the absence of an acute disc herniation this can still cause injury to an asymptomatic degenerative disc leading to significant impairment as discussed above.

There are many additional aspects of patients/clients who have pre-existing back or health issues prior to an injury or a motor vehicle accident. An important aspect is the legal doctrine known as the "Eggshell Skull Rule" aka "Thin Skull Rule." I'm sure you are all acquainted with this legal doctrine, however, you must have "Substantial Medical Evidence "that the injuries in question are separate from a pre-existing issue. Perhaps I will demonstrate in a later topic the importance of apportionment and how to substantiate our opinions based on reasonable medical probability.

References

1. Newgard, C.D (2008) Defining the "older" crash victim: The relationship between age and serious injury in motor vehicle crashes. *Accident Analysis & Prevention, 40 (4),1498-1505*

- 2. Panjabi, M.M., Maak, T.G., Ivanic, P.C., & Ito, S. (2006). Dynamic intervertebral foramen narrowing during simulated rear impact. *Spine*, 31 (5), E128-E134
- 3. Hijioka, A., Narusawa, K. & Nakamura, T. (2001). Risk factors for long term treatment of whiplash injury in Japan, Analysis of 400 cases., *Archives of Orthopedic and Trauma Surgery,* 121(9), 490-493.
- 4. Edgar, M.A. (2007), The nerve supply of the lumbar intervertebral disc. *The Journal of Bone and Joint Surgery, British Volume*, 89(9), 1135-1139
- 5. Fremont, A. J. Peacock, T. E., Goupille, P., Hoyland, J.A., O'Brien, J., & Jayson, M.I.V. (1997) Nerve ingrowth into diseased intervertebral disc in chronic back pain. The Lancet, 350(9072), 178-181
- 6. Garcia Cosamalon, J., del Valle, M.E., Calavia, M.G., Garcia-Suarez, O., Lopez-Muniz, A., Otero, J., Vega, J.A. (2010). Intervertebral disc, sensory nerves and neurotrophins: Who is who in discogenic pain? *Journal of Anatomy, 217(1), 1-15*