

## Smoking Gun or Smoke and Mirrors: Science Vs. Nonscience

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Chiropractic physicians are no stranger to the imbroglio of whiplash or cervical acceleration/deceleration (CAD) trauma. A poorly understood condition, this enigmatic pastiche of clinical findings has baffled clinicians and scientists for years, and the legal ramifications have muddied the waters considerably. So much so that whiplash has become a metaphor for the nonobjectifiable, soft tissue injury. The supposed vacuum of objectivity has engendered a long line of instruments, tools, and machines, designed specifically to demonstrate some form of injury. Most, however, have passed into the electronic Valhalla, having failed to stand up to scientific scrutiny.

Through the years, a natural adversarial system has developed between insurers and claimants. A small but still significant number of claims are factitious and this, unfortunately, serves only to fuel this adversarial farrago. The insurance industry, in conjunction with the defense legal community and their expert chiropractic and medical advisory, have developed a very successful defense strategy for contending with these soft tissue claims. Of all the strategies, these are the most important: 1) first attempt to wriggle out of liability (our guy didn't cause the accident) or assign contributory negligence (such as for failure to wear seat belts), 2) hire an expert to perform a defense medical examination, 3) this expert can rely on a number of medical writings to fortify his opinion, 4) take advantage of "negative" tests (such as MRI, CT, x-ray), 5) make an issue out of the treating doctor's poor clinical records (without SOAP notes it is difficult to demonstrate a need for treatment on every visit), 6) attempt to catch the claimant in a lie (such as by comparing the deposition records with courtroom testimony), 7) through careful cross-examination, attempt to portray the treating doctor as careless, sloppy, uncertain, lacking knowledge or partisan; attempt to find evidence of alliance between plaintiff attorney and treating doctor, 8) attempt to apportion current condition to prior accidents or pre-existing disease (spondylosis, etc.), 9) highlight a lack of objective evidence if possible, and 10) exploit the jury's natural tendency for skepticism in such cases.

In contrast to this well-developed defense juggernaut with its typically unlimited budget, patients (honest or otherwise) and their treating physicians are often easy prey. Factitious claims aside, the playing field has become uneven with the plaintiff usually on the downhill side, looking up. In the last five years, the insurance industry has become increasingly vigilant in defending these claims. This has forced a continuing evolution of strategies on both sides of the fence.

One of the "tools" which has historically been utilized by either side is the learned treatise. Much verisimilitude can be gained merely by publishing, and the written word can have tremendous impact on a jury. Sadly, review boards often fail to screen out flawed or unsubstantiated reports. Studies have shown that 75 percent of published medical research is flawed in a significant way. In nonrefereed journals, the problem is worse. Over the years I've come upon a huge number of papers written on whiplash and related topics that clearly demonstrate a fundamental lack of knowledge in the area. Often, what passes for sagacity and scientific validity is often nothing more than

philosophical editorializing, with the author's opinions anchored to reality merely by imaginary threads. Such nonscience becomes particularly irresponsible in areas in which lay persons are frequently asked to rely on the written word as evidence. A couple of examples come to mind. In 1961, a noted British neurologist, Henry Miller, reported that many of his cases of alleged postconcussion (PCS) were suffering only from "accident neurosis".<sup>1</sup> Since that time his theories have been universally debunked.<sup>2-13</sup> Not surprisingly, his work remains influential in some medicolegal circles and has probably played a significant role in defeating many thousands of PCS claims.

In 1991, an article appeared in JOMS which refuted the role of whiplash in the development of temporomandibular disorders.<sup>14</sup> As evidence for this, the authors provided a model of the head, jaw, and spine which can only charitably be described as a poor attempt at humor. For example, in full extension of the neck, the jaw did not open. I have discussed this in detail elsewhere.<sup>15</sup> In any event, one has to wonder what motivates these nonsyllogistic attempts at suasion.

The most recent example in our own literature is a two-part article in the ACA Journal.<sup>15,16</sup> Here, the author attempts to exhume the ghost of "litigation neurosis," long since buried after numerous authors have failed to show it as a significant factor in CAD trauma.<sup>18-24</sup> He also points to a number of "non-organic" factors which might adversely effect outcome. Factors mentioned include home and job stress, poor coping skills, psychological status, and a number of other variables which may, indeed, have some effect on these cases. Unfortunately, there is no hard evidence that these conditions adversely effect the outcome in CAD or PCS cases, and chiropractors are generally not trained in evaluating them. The author offers no advice on just how to deal with these issues. He also curiously assailed my writings repeatedly, offering instead opinions which he often attempted to verify with references from the medical literature on the subject of low back pain rather than whiplash. He repeatedly misconstrued, and often grossly mischaracterized, my writing. He further criticized my classification of CAD trauma as "cookbook" and even suggested that our research here at SRISD is biased. The author went as far as to quote another medical reference which stated that chiropractic treatment may ultimately prolong care in these cases. That author, however, qualified that statement in the next sentence by adding, "It is difficult to determine whether more treatment results in longer symptom duration or whether longer duration of symptoms leads to more treatment. I believe both play a pathogenic role."<sup>25</sup> These last three articles<sup>14,16,17</sup> are examples, I believe, of unacceptable, nonscientific, irresponsible journalism.

Scientific investigation is painstakingly time consuming, expensive, and not always rewarding. But it is necessary. The scientific method will ultimately lead to a more truthful and meaningful understanding of our world, our people, and how best to treat their diseases. Our best evidence in any investigation is to find the smoking gun. Many, unfortunately, are content instead to hide behind smoke and mirrors. I believe we should seriously question the motives of those who dismiss any part of the scientific method, out of hand, as some form of statistical shenanigans.<sup>16,17</sup> And, I would heartily suggest that anyone treating CAD injuries read the articles mentioned herein and form their own opinions. Two of the most recent<sup>16,17</sup> will no doubt soon be making an appearance in an arbitration or courtroom near you.

References are available upon request by contacting Dr. Croft at (619) 423-9860.

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Editor's Note:

For more on personal injury, consult Dr. Croft's video, "Advances in Personal Injury Practice," #V-435, on the Preferred Reading and Viewing List, pages xx.

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