

American Back Society: Millennium Meeting Sums It All Up, Part II

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Saunders on SI vs. Lumbar Pain

Physiotherapist H. Duane Saunders discussed exam techniques to differentiate low back pain from sacroiliac pain. His talk contained all sorts of tantalizing stuff, but he was so rushed (ABS presenters only have about 12 minutes to say everything they know) that I could only pick up on snippets here and there. He claimed he could palpate the depth of the sacrum and the location of the inferior sulcus (although he did not use the "S" word) on the prone patient. He also supported the concept of pelvic torsion as a pathomechanical entity, stating that when delta PSIS heights exceed the delta for the left-right iliac crests, there may be pelvic torsion. (I have an article on pelvic torsion in press in *Topics in Clinical Chiropractic*). At one point, after Bogduk had insisted that diagnostic injections be used to accurately identify sacroiliac problems, Saunders, asked to defend physical exam procedures for SI joint problems, was unable to refute Bogduk's position.

Mr. Saunders also went over an intriguing sitting vs. supine leg check, in which a reversal of the exam results would again suggest pelvic torsion. It seemed just as criticizable as the conventional chiropractic explanation of why functional short legs go along with PI iliums. (You know, the one that has the posterior swing of the innominate bone hoisting up the hip, as though this wouldn't hoist up the pubic symphysis as well and thereby luxate the front of the pelvis. This is not a theory to be tossed aside lightly: it should be thrown away with great velocity.¹)

From the McKenzie Department

Mr. Robin McKenzie, who usually leaves the bulk of his scientific presenting to close associate Ronald Donelson, was asked to participate in this meeting's end-of-the-millennium retrospective theme. His talk was particularly informal, more a string of general assertions than any type of scientific or clinical report. Nevertheless, many of those assertions are truly worthy of consideration, and are assembled below (some paraphrased a bit):

- "The medical model has failed the patient; please don't shoot the messenger."
- "Patient, heal thyself."
- "Our extremity treatments don't work, so the burden of treatment must be transferred back to the patient."

- "We continue to apply unproven treatments, and the costs continue to rise."
- "The amount of treatment provided depends on the number of health care providers more than anything else."
- "Health providers encourage consumption and create dependence."
- "MSK providers frequently ignore natural history."
- "We cannot accelerate healing; we can prevent delay or disruption in repair."
- "Following injury, we must strive for optimal recovery of function. That requires education ... Patient management in the future must emphasize education; only a few will require treatment."

McKenzie indicated that therapists must find a direction of movement that centralizes symptoms and normalizes the anatomy. One central goal is to identify potential non-responders early in the course of the process as people whose pain does not centralize. Then, the most optimal diagnostic and treatment options can be efficiently explored.

The most substantive portion of McKenzie's presentation involved classifying back pain into three causes, each of which would require a different treatment rationale:

1. endrange stress of normal tissue, the postural syndrome; predisposing to acute derangement; treatment involves re-education in a postural program.
2. endrange stress of contracted tissue, the dysfunctional syndrome; treatment involves remodeling the scar tissue in a controlled manner.
3. anatomic disruption and displacement of discal tissue, the derangement syndrome; treatment aims to reduce displacement of tissue (provided the annulus is intact).

Dr. Donelson is always compelling. Whereas others use bombast to exaggerate the importance of their own work, so that their personality actually distracts from the message, Donelson delivers work of tremendous clinical significance using a vehicle of personal humility, although not without a measure of subdued excitement. A frequent speaker on the subject of McKenzie diagnostic methods, his theme this time was on the need to reduce the variation in findings and diagnoses among the disciplines involved with spinal evaluation. Why? Because it is silly that the treatment rendered depends on what office the patient happens to visit. The Quebec Task Force had noted as far back as 1987 that there is much variability in the diagnoses, which is compounded at each successive step in treating the patient.

After casting doubt on conventional objective tests (the usual suspects like plain x-ray, myelography, MR, CT and diagnostic injections), Donelson recommended increased usage of (guess what?) McKenzie exam methods. He provided many references in support of this point.

Question: can we find clinical exam elements of sufficient diagnostic power that are inexpensive, quick, and can be mastered by multiple clinicians with good reliability?

Donselson's answer: McKenzie, McKenzie, and more McKenzie. (I have described the response to repeated endrange provocation/relieving tests in previous columns.) In short, centralization is a strong predictor of a superior clinical outcome in treating discogenic pain (although not necessarily herniated disc). "The reliability and validity of monitoring patterns of pain response to mechanical provocative testing" will reduce the variability of practice styles. Bogduk on Manipulation

Dr. Nikolai Bogduk doesn't think much of manipulation, stating somewhat cryptically (tactfully?) that the effects of chiropractic work in much more subtle ways than most manipulation theories espouse. As an indicator of where that remark was meant to go, he stipulates that all current physicians should be forced to demonstrate proficiency in identifying Waddell's signs.^{2,3} During a panel discussion he recommended chiropractors, in their own self-interest, not equate themselves with manipulation because "the manipulation business will be dead in the next century" and that there is no reason to guarantee everyone serving in the present will have a role to play in the future. We should be less diplomatic and less tolerant of the present "guilds" maintaining their privileged status (i.e., their income) into the future.

According to Bogduk, the only treatment most acute low back patients need is education, although Waddell still needs RCTs to learn how to best treat chronic patients. Likewise, Dr. Rene Cailliet opined that "85% will get better whatever we do, and we only have to worry about the 15%." (Mr. Saunders, who finds a way to state at every ABS meeting that the back problem is not solved when the pain goes away, obviously has a small impact on some of his colleagues.)

Croft on Crash Testing

Then there was Dr. Arthur Croft, who spoke on crash testing with human volunteers. (Croft drives a full-sized Mercedes that he has already tested in an accident; yes, he did survive.) A noted authority on the subject, he began by claiming that the "most polluted literature we have is on whiplash, with lots of junk science." Perhaps the most controversial issue is over whether there is any such thing as a chronic whiplash syndrome, or "late whiplash." Dr. Croft finds that even using conservative epidemiological assumptions, at least 6.7% of Americans have late whiplash. Perhaps 45% of all chronic neck pain in the U.S. is attributable to motor vehicle accidents.

I will refrain from quoting Dr. Croft's numbers on what type and severity of injury is produced at different speeds, in different types of cars, etc., because it is too easy to get that wrong in a 12-minute talk that really needs a full hour. However, it would not be hard to obtain Dr. Croft's articles⁴⁻⁷ and his book on whiplash.

For any impact, the torso accelerates more than the car, and the head and neck more than the torso. According to the newest model of whiplash, most injury is due to head lag; the lag is due to backset (the distance from the head to the backrest); and most injury occurs in the first 100 msec. At impact, there is cervical compression in extension, associated with shearing. Most post-traumatic pain owes to the facet joints. An S-shaped cervical spine configuration occurs with flexion-not necessarily hyperflexion-of the upper cervical spine, with associated hyperextension of the lower segments. Global hyperextension of the lower cervical spine need not occur, since there may be more damaging focal hyperextension. The subtlety of these MVA spinal biomechanics, in which local stresses are more important than the global stress placed upon the neck, may elude the attention of those who reject the notion of late whiplash on theoretical grounds. Such individuals will be forced instead to regard chronic sufferers as either malingerers, insurance grifters, symptom magnifiers, nut cases, or vengeful

malcontents who are still angry at the "jerk" who broadsided them by going through a red light.

(*Editor's note:* Part III of Dr. Cooperstein's review of the ABS meeting will appear in the May 29 issue of *DC*.)

References

1. Cooperstein R. Functional leg length inequality: geometric analysis and an alternative muscular model. In: *8th Annual Conference on Research and Education*. Monterey, California: 1993, Consortium for Chiropractic Research/California Chiropractic Association, p. 202-203.
2. Waddell G, McCulloch JA, Kummel E, Venner RM. Nonorganic physical signs in low back pain. *Spine* 1980;5(2):117-25.
3. Main CJ, Waddell G. Behavioral responses to examination. A reappraisal of the interpretation of "nonorganic signs." *Spine* 1998;23(21):2367-71.
4. Croft AC. Neck pain in the general population (letter; comment). *Spine* 1995;20(5):627-9.
5. Freeman MD, Croft AC. Late whiplash syndrome (letter; comment). *Lancet* 1996;348(9020):125; discussion, 125-6.
6. Freeman MD, Croft AC, Rossignol AM. "Whiplash associated disorders: redefining whiplash and its management" by the Quebec Task Force. A critical evaluation see (comments). *Spine* 1998;23(9):1043-9.
7. Freeman MD, Croft AC, Rossignol AM, Weaver DS, Reiser M. A review and methodologic critique of the literature refuting whiplash syndrome. *Spine* 1999;24(1):86-96.

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