Dynamic Chiropractic – April 22, 2011, Vol. 29, Issue 09

Back Surgery: Too Many, Too Costly, Too ineffective, Part 3

By J.C. Smith, MA, DC

Medical Myths

The reason for the ineffectiveness of spine surgeries in general for nonspecific back pain, which constitutes 85 percent of all low back pain cases,[61] is not due to faulty surgical methods as much as it has to do with an outdated understanding of back pain itself. Spine researcher Chien-Jen Hsu, MD, admitted in the *Journal of Neurosurgery: Spine*, "By far the number one reason back surgeries are not effective and some patients experience continued pain after surgery is because the disc lesion that was operated on is not, in fact, the cause of the patient's pain."[62]

Now studies show that *the basic premise of abnormal disc surgery has come under criticism by medical researchers.* In effect, the disc theory is now defunct, but kept alive by spine surgeons and the MRI industry.

Most physicians preach and laypeople still believe in the common medical lore of "pulled muscles" and "slipped discs" when it comes to back pain, ignoring the role of spinal joints and altered spinal mechanics in this pain process. This simplistic misunderstanding is the underlying cause of mistreatment for back pain that has been perpetuated far too long as a medical myth.

This renaissance in spine diagnosis began in 1990 when research by Scott Boden, MD, et al.,[63] followed in 1994 by a supportive study by Maureen Jensen, MD, et al.,[64] found no clear correlation between disc abnormalities and back pain. Yet nearly every surgeon uses disc abnormalities as a selling point on images to convince the unsuspecting patient. "Here's your problem," they say, pointing to a degenerative or herniated disc on an MRI, "and if you don't have my surgery, you may be paralyzed." This may be the biggest con-job in modern medicine today.

Beginning in 1990, Dr. Boden, director and researcher at Emory University's Orthopaedics & Spine Center, was among the first to show abnormal discs were not the sole cause of back pain since asymptomatic patients had these problems too, but had no pain. On the other hand, many patients with back pain showed no signs of disc problems. Many spine experts now admit most back pain is due to joint dysfunction and not anatomical disorders like arthritis or disc abnormalities.

Dr. Boden's study performed MRI scans of sixty-seven asymptomatic patients who had never had low-back pain, sciatica or neurogenic claudication. These scans were interpreted by three neuroradiologists who had no knowledge about the subjects. About one-third of the subjects had a substantial abnormality. In the 60-years-or-older group, the findings were abnormal on about 57 percent of the scans: 36 percent had a herniated nucleus pulposus and 21 percent had spinal stenosis. 35 percent had degenerative or bulging discs.[65] *Yet none of these patients had any symptoms.*

Many studies now admit the fallacy of using MRIs to detect abnormal discs to justify spine surgery: "You may have a bulging disc that shows up on an MRI scan, but that may not be the cause of your leg pain. You can have disc degeneration or other anatomical lesions that show up on the scan, but are not causing pain. *Studies have shown that many people with no pain or other symptoms often have some sort of disc problem show up on an MRI scan.*"[66] (Emphasis added)

Raj Rao, MD, director of spine surgery in the Department of Orthopaedic Surgery at the Medical College of Wisconsin, also spoke of this paradox in spine imaging. "You can look at the MRIs of two people, both showing degenerative discs, but in one case there is little to no pain, while in the other, extreme pain. On the other hand, you can see a healthy spine but the patient has severe pain."[67]

Indisputably, MRI scans have been used as effective selling points and have greatly increased the number of unnecessary surgeries. "In fact," says Dr. Richard Deyo, "*back surgery rates are highest where MRIs are the highest*. In a randomized trial, we found that doing an MRI instead of a plain x-ray led to more back surgery, but didn't improve the overall results of treatment."[68]

Dr. Deyo again debunked the disc theory that often leads to a "false positive" misdiagnosis when he concluded that "many of these abnormalities are trivial, harmless, and irrelevant, so they have been recently dubbed 'incidentalomas'," because it may be incidental to your pain. "And *we know that bulging, degenerated, and even herniated discs in the spine are common among healthy people with no symptoms*. When doctors find such discs in people with back pain, *the discs may be irrelevant*, but they are likely to lead to more tests, patient anxiety, and perhaps even unnecessary surgery."[69] (Emphasis added)

As Boden and Deyo suggested, another 2009 Stanford University study found that the abundance of MRI scans lead to excessive back surgeries. According to Stanford University Medical Center, patients who live in areas with more MRI scanners are more likely to undergo spine surgery. "The worry is that many people will not benefit from the surgery, so heading in this direction is concerning," said senior author Laurence Baker, PhD.[70]

The Stanford study confirms the fear that greater access to MRI technology leads to more back surgeries. "The net result is increased risks of unnecessary surgery for patients and increased costs for everybody else," according to John Birkmeyer, MD, professor of surgery and a health policy researcher at the University of Michigan.[71]

In yet another workers' compensation study from Kentucky by Leah Carreon, MD, et al.,[72] only 19 percent of patients had a clinically significant improvement in disability after fusion surgery. "Surgeons should be cautious in discussing the effectiveness of lumbar fusion for patients on workers' compensation," said Carreon. Considering 81 percent found no improvement or worsened, this is sage advice rarely told to unsuspecting prospective patients.

The fundamental flaw of spine surgery rests with the emphasis on MRIs to detect *pathoanatomical* disorders (disc abnormalities, arthritis, bone spurs) rather than the emphasis on *pathophysiologic* disorders (malfunctioning due to a combination of joint dysfunction, malalignment, loss of flexibility, muscle weakness and compression). What matters most from the chiropractic perspective is how the spine bears weight and functions, not just the amount of disc degeneration or other anatomical issues like bone spurs or arthritis.

Foremost, spinal problems are dynamic types of injuries, according to Drs. David R. Seaman and James F. Winterstein, who explained that joint complex dysfunction (JCD) is associated with spinal misalignment and aberrant joint motion that may subsequently cause a cascade of events such as reflex muscle spasms, disc inflammation, nerve compression, neurological dysafferentiation, vascular constriction, localized pain, and joint stiffness.[73-74] Evidently, JCD is not as simple to understand as the slipped disc theory, but essential to comprehend why manipulative therapy is so effective.

In fact, most medical doctors and patients are unaware there are spinal joints or how abundant they are. Counting all the vertebral joints, sacroiliac joints, rib heads, and the pubic symphysis, new research now suggests the total is 313, a fact that is lost on most physicians. This total includes all synovial, symphysis and syndesmosis joints, according to Gregory D. Cramer, DC, PhD, dean of research at National University of Health Sciences.[75]

The Ignorance Factor

Not only has the focus of back pain shifted from discs to joints, but new studies also have confirmed that most primary care medical physicians are inept in their training on musculoskeletal disorders,[76] more likely to ignore recent guidelines[77] and more likely to suggest spine surgery than surgeons themselves.[78] As well, some physicians suffer from "professional amnesia," as Anthony Rosner, PhD, described those who inexcusably forget to inform patients that chiropractic care is a recommended option to the often-ineffective medical methods.[79]

Scott Boden admits, "Many, if not most, primary care providers have little training in how to manage musculoskeletal disorders." His belief is supported by the consensus that the poor medical outcomes stem from an antiquated disc theory, too many MRIs detecting incidentalomas, ineffectual medical treatments, and primary care physicians who are ill-trained to diagnosis. Indeed, the major obstacle to overcome in this epidemic of back pain originates with medical doctors themselves.[80]

This paradigm shift away from drugs, shots and spine surgery has been well-noted in medical research, but has been virtually ignored by the medical industrial complex that guards this multi-billion dollar market. If chiropractic care were substituted as a first-line treatment for low back and neck pain as recommended by many studies, the billion dollar expense could be reduced drastically. Not only would the cost of medical treatments decrease; so would disability costs and workers' compensation expenses.

The potential for realistically lowering costs with chiropractic care may be a large reason why hospitals controlled by a biased medical society may not want to include lower-cost providers such as doctors of chiropractic. When hospitals can charge $100,000 or more for radical back surgeries, the incentive to utilize lower-cost services is compromised. Realistically, why would a hospital with a perverse motivation to exploit patients want a chiropractor on staff who will earn a mere $800 per case on the average?[81] While the payers and patients might enjoy this inexpensive resolution, the hospital administration surely would not.

President Obama noted the resistance to change when he mentioned:[82] "We know the moment is right for health care reform. We know this is an historic opportunity we've never seen before and may not see again. *But we also know that there are those who will try and scuttle this opportunity no matter what* - who will use the same scare tactics and fear-mongering that's worked in the past. They'll give dire warnings about socialized medicine and government takeovers; long lines and rationed care; decisions made by bureaucrats and not doctors. *We've heard it all before - and because these fear tactics have worked, things have kept getting worse*." (Emphasis added)

The same problem can be found with the diagnosis and treatment of back pain. Despite the new research showing the efficacy of chiropractic care, the fear-mongering and scare tactics used by spine surgeons and primary care physicians has vilified this best option of care. The AMA's defamation of chiropractic was effective in creating unfounded fears and skepticism, and for all intents, eliminated competition as well as perpetuated ineffective medical treatments in this epidemic of back pain.

Editor's note: Part 2 of this article appeared in the April 9 issue; part 4 (the final installment) will appear in the next (May 6) issue.

References

61. Deyo RA. Conservative therapy for low back pain: distinguishing useful from useless therapy. *Journal of the American Medical Association*, 1983;250:1057-62.

62. Hsu CJ, et al. Clinical follow up after instrumentation-augmented lumbar spinal surgery in patients with unsatisfactory outcomes. *J Neurosurg: Spine,* October 2006;5(4):281-286.

63 Boden SD, Davis DO, Dina TS, Patronas NJ, Wiesel SW. Abnormal magnetic-resonance scans of the lumbar spine in asymptomatic subjects: a prospective investigation. *J Bone Joint Surg Am,* 1990;72:403-408.

64. Jensen MC, Brant-Zawadzki MN, Obuchowski N, Modic MT, Malkasian D, Ross JS. Magnetic resonance imaging of the lumbar spine in people without back pain. *N Engl J Med*, 1994;331:69-73.

65. Boden SD, et al., *Op Cit*.

66. Spine-health.com: Sciatica Symptoms. www.spine-health.com

67. Garfinkel P. "The Back Story." *AARP: The Magazine*, July/Aug 2009.

68. Deyo RA, *Op Cit*.

69. Deyo RA, *Op Cit*.

70. Welsh J. "MRI Abundance May Lead to Excess in Back Surgeries, Study Shows." Stanford University School of Medicine, Oct. 14, 2009.

71. *Ibid.*

72. *Ibid.*

73. Seaman DR, Winterstein JF. Dysafferentiation, a novel term to describe the neuropathophysiological effects of joint complex dysfunction: a look at likely mechanisms of symptom generation. *J Manipulative Physiol Ther*, 1998;21:267-80.

74. Seaman DR. Joint complex dysfunction, a novel term to replace subluxation/subluxation complex. Etiological and treatment considerations. *J Manip Physiol Ther*, 1997;20:634-44.

75. Cramer G, Dean of Research, National University of Health Sciences, personal communication with J.C. Smith (April 29, 2009).

76. Joy EA, Van Hala S. Musculoskeletal curricula in medical education-- filling in the missing pieces. *The Physician And Sports Medicine*, November 2004;32(11).

77. Bishop PB, et al. The C.H.I.R.O. (Chiropractic Hospital-Based Interventions Research Outcomes) study, part I: a randomized controlled trial on the effectiveness of clinical practice guidelines in the medical and chiropractic management of patients with acute mechanical low back pain. *Spine J*, December 2010;10(12):1055-64.

78. Bederman SS, Mahomed NN, Kreder HJ, et al. In the eye of the beholder: preferences of patients, family physicians, and surgeons for lumbar spinal surgery. *Spine*, 2010;135(1):108-115.

79. Rosner A. "Evidence or Eminence-Based Medicine? Leveling the Playing Field Instead of the Patient." *Dynamic Chiropractic*, Nov. 30, 2002.

80. Boden S, et al. Emerging techniques for treatment of degenerative lumbar disc disease. *Spine*, 2003;28:524-525.

81. Mushinski M. Average hospital charges for medical and surgical treatment of back problems: United States, 1993." *Statistical Bulletin Metropolitan Life Insurance Co.*, Health and Safety Division, Medical Dept., April-June 1995.

82. Text of President Obama's health care speech, June 15, 2009, reprinted by MarketWatch.

Dr. J.C. Smith, 1978 graduate of Life Chiropractic College, is the author of The Medical War Against Chiropractors: The Untold Story From Persecution to Vindication, from which this article series on spine surgery is derived.

■