COMMENTARY: MEDICAL EVIDENCE RECOGNISING THE VERTEBRAL SUBLUXATION COMPLEX

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INTRODUCTION

It seems that some in medicine have accepted concepts regarding the chiropractic subluxation and with the more descriptive clinical appellation, the Vertebral Subluxation Complex (VSC).

While there are many examples, it is interesting to note some of the more prominent observations noted in medical textbooks which essentially support this chiropractic concept.

This summary is presented to demonstrate examples of authoritative literature supporting the vertebral subluxation complex and functional biomechanics.

DISCUSSION

An unscientific contradiction appears to exist within medicine. European medical doctors have published a variety of case reports demonstrating similar efficacy for a range of somatovisceral conditions as those under the manipulative chiropractic model. At the same time elsewhere, other medical critics question the scientific basis and right of chiropractors to conduct the same practices as their medical colleagues in Europe.

Formal research supporting a critical, contrary view of chiropractic subluxation concepts could not be located and does not appear to exist.

In addition to the list of relevant papers noted here, the volume published on this topic in the chiropractic journals and textbooks is significant. These inevitably cite medical references upon which the theories underpinning the VSC, are based.

The following are extracts from published medical textbooks which recognise the VSC.

As early as 1918, the surgeon Warbasse stated that "*Subluxations of vertebrae occur in all parts of the spine and in all degrees,"* and he nominated such terms as *"common subluxations"* and *"finer displacements".* (1)

The orthopaedic surgeons Goldthwait, Brown, Swain and Kuhns first published their text on body mechanics in 1934. The textbook underwent 5 editions in just 18 years through to 1952. The authors state *"The influence of faulty body mechanics on the body as a whole has been shown in the preceding chapters. There are effects on the heart, on blood pressure, on nervous innervation and on the tissues surrounding the blood vessels. Removal of these disturbances leads to less strain on the arteries. While much can be done to improve arterial disease after it has developed, much more can be accomplished by early treatment before pathological changes have*

occurred." They continue, *"Probably many of these changes* (unexplained upper abdominal symptoms) *are due, as Pottenger has suggested, to disturbances of the sympathetic nervous system which can be explained on a mechanical basis."* (2) Just 10 years after DD Palmer's 1895 discovery, Goldthwait first published on the topic in 1905. (3,4)

Amongst a number of references in their text, Professors Schmorl and Junghanns recognise the functional element of a VSC when they note that motor segments "*may become locked*" - and further that *"there is no doubt that the causes for such disturbances are located in the motor segment."* (5)

The orthopaedist Maigne recognised sacroiliac subluxations and also referred to subluxations as *"minor intervertebral derangements'*. Further, he associated manipulation of this *"anatomopathology"* with various *"functional disturbances manifesting as organic conditions."* In his text on spinal manipulative management, under the heading of functional disturbances, the once head of the physical medicine department of a Paris hospital listed such conditions as constipation, certain digestive pains, asthma, facial pain, Basedow's disease, mastodynia, palpitations, pseudo-ulcers, and Barré Syndrome, as conditions that have responded to spinal manipulation. (6)

White and Panjabi recognise the hypothesis of the *chiropractic subluxation* and note that *"In order for manipulation to be successful, (manipulators) must somehow produce improvement using mechanical alteration…"* (7)

The 1980 edition of Gray's Anatomy stated in reference to the sacroiliac joint that *"locking may occur…"* and that *"This so-called subluxation of the sacro-iliac joint causes pain"* and that *"reduction by forcible manipulation may be attempted."* (8)

Although discussed in reference to lumbar facet rhizotomies, the neurosurgeon Finneson noted that *"…non-specific low back pain does not remain within the distribution of a single root and is usually not associated with reflex changes or valid motor weakness. It is speculated that "facet dysfunction" may be a factor in these problems. A clinical finding associated with facet dysfunction is acute tenderness to pressure over the affected facet. Sometimes this pressure will not only reproduce pain within the back but also aggravate extension of the pain into the lower extremity. It is further speculated that the facet dysfunction may occur from derangement and instability of the facet joint, resulting in overriding secondary to a collapsed degenerated intervertebral disc."* (9) In a collaborative endeavour, the chiropractor/neurologist Haldeman, contributed a separate chapter on spinal manipulative management of lower back pain in this text. (10)

In 1987, Gutmann published his case findings on the adjustment of atlas 'blockages' (subluxations) on more than 1,000 infants. These patients presented with a remarkable array of somatovisceral conditions attributed to associated neurological impulse alteration. They reportedly responded well to manual care. (11)

The respected radiologists, Keats and Anderson, state that *"Physiological subluxations can occur on children's X-rays, simulating dislocations, particularly of C2 on C3 and C3 on C4 on forward flexion. In such circumstances there may be*

steps in lines 1 and 2 but line 3 will remain intact. All three lines are out of alignment with a real subluxation." These authors also coined the term *physiological subluxations*. (12)

The former surgeon and now conservative orthopaedist Heiner Biedermann's text is devoted to the manipulative management of infants. It centres on the release of functionally blocked vertebrae. This paediatric medical text devotes a whole chapter by Theiler on the manipulative management of *attention deficit disorder* (ADD). There is also a specific section in that text on *colic*, as well as discussions on *mechanical dyspnea syndrome, asthma* and *obstructive bronchitis.* (13)

In a similar vein on medical spinal manipulation, Professor Karel Lewit's text has a section on *vertebrovisceral correlations.* He discusses various published medical papers relating to somatic associations with a number of 'visceral' conditions - somatovisceral. His dissertation covers conditions involving the tonsils, heart, lungs and pleura, stomach and duodenum, liver and gall bladder, kidneys, as well as gynaecological disorders. (14)

On a number of occasions in the textbook *General Practice*, the medical lecturer from Monash University in Melbourne, Dr John Murtagh suggests *"vertebral dysfunction"* as one of the possible differential diagnostic options in considering a range of symptoms and conditions. He regards *vertebral dysfunction* as a possible masquerade for 7 nominated conditions.(15)

Despite earlier reservations, Professor Bogduk and colleagues' relatively recent publication appears to reflect a reconsideration of spinal manipulation. "The potential for manual therapy to treat painful intervertebral discs (or sciatica due to disc herniation) **is just beginning to receive formal scientific attention"**. (16) (Emphasis added)

CONCLUSION

In addition to the foregoing, numerous papers in medical journals, especially European publications, elaborate on the manipulative management of somatovisceral conditions. Further, critics have not cited original research which contradicts the clinical existence of the VSC, disproved associated signs and symptoms, nor demonstrated contradictions of its potential physiological benefits when these functional spinal lesions are manually addressed.

REFERENCES

1. Warbasse JP. Surgical treatment – a practical treatise on the therapy of surgical diseases for the use of practitioners and students of surgery. Philadelphia, PA; WB Saunders Co. 1918:623
2. Goldthwait JE, Brown LT, Swaim LT, Kuhns JG. Essentials of body mechanics in health and disease. 5th edn. Philadelphia, PA: JB Lippencott Co. 1952:135,192

3. Goldthwait JE, Osgood RB. A consideration of the pelvic articulations from an anatomical, pathological, and clinical standpoint. Boston Med Surg J 1905;152:593-601
4. Golthwait JE. An anatomic and mechanistic conception of disease, Boston Med Surg J 1915;172:881
5. Schmorl G, Junghanns H. The human spine in health and disease. New York, NY; Grune & Stratton 1971:221-222
6. Maigne R. Orthopaedic medicine: a new approach to vertebral manipulation. Springfield, MA; Charles C Thomas. 1972:27, 164, 192-209, 390
7. White AA, Panjabi MM. Clinical biomechanics of the spine. Philadelphia, PA; JB Lippincott Co. 1978;313-314
8. Williams PL, Warwick R. Gray's anatomy, 36th Ed. New York, NY: Churchill Livingstone 1980;477
9. Finneson BE. Low back pain. 2nd en. Philadelphia, PA: JB Lippincott Co.1980;563
10. Haldeman S. Spinal manipulative therapy in the management of low back pain. Chapter 7. In: Finneson BE. Low back pain, 2nd ed. Philadelphia, PA: JB Lippincott Co.1980;245-276
11. Gutmann G. Blocked atlantal nerve syndrome in babies and infants. Manuelle Medizen 1987;25:5-10. [See:- Peters R, Chance M. A priceless legacy – lost, strayed or forfeited. J Aust Chiropr Assoc. 1988;18(3):81-84., also Gutman G. ICA Review, 1990; July:37-42.]
12. Keats TE, Anderson MW. The neck. Chapter 3. In: Atlas of normal roentgen variants that may simulate disease, 7th. ed. St Louis, MO: Mosby Inc.2001:66, 222-223
13. Biedermann H. Manual therapy in children. Edinburgh, UK: Churchill Livingstone; 2004;133-144,195, 295-297
14. Lewit K. Manipulative therapy: musculoskeletal medicine. Oxford, UK: Butterworth-Heinemann; 2009:281-297
15. Murtagh J. General practice, 5th Edn. North Ryde, Australia, 2012.
16. Adams MA, Bogduk N, Burton K, Dolan P. The biomechanics of back pain. 3rd ed. Edinburgh, UK: Churchill Livingstone Elsevier: 2013:270