Dynamic Chiropractic



Physical Examination in an Evidence-Based World

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I have always had a fascination with physical examination procedures, particularly orthopedic tests. The origin of my fascination began just after graduation when I began the chiropractic orthopedics program. It became evident early in the program that the number of orthopedic tests included in my chiropractic college training was minimal and insufficient. A chasm was present in my diagnostic skills. This fact created a desire to know as many tests as possible.

As I began studying additional tests, a second fact became immediately evident: There are more tests than a person can remember or use practically. With that realization, my desire changed to learning the most productive tests.

All of this began more than 25 years ago. Since then, the list of most productive tests has evolved. The evolution has been a result of continued study, trial and error - and the evidence-based movement.

The Evidence-Based Movement and Its Impact on Health Care

The evidence-based movement has been an interesting phenomenon. It seemed to originate more from the third-party-payer sector than from the health care sector. Third-party payers began to deny procedures based on a lack of evidence for their use and began labeling many procedures as experimental.

Many procedures have never been studied, have been the subject of limited studies or have been the subject of faulty studies. The third-party-payer sector has taken the lack of studies to mean there is no evidence for the use of a procedure. It also will use a single negative study or a single faulty study to its favor, usually as the reason not to cover or reimburse for a procedure.



The response from the health care sector has been an attempt to establish a standard of only using the most evidence-based / effective procedures. However, the health care sector sometimes inflates its progress in the development of the standard.

For example, a few years ago I was visiting the website of one of the chiropractic colleges. The recruitment portion of the site included an interview with one of the college's professors. When asked why she liked teaching at the college, she essentially stated it was because the college "only" taught or allowed the utilization of evidence-based, proven procedures.

This surprised me – "only" evidence-based, proven procedures? I could have believed "primarily" evidence-based, proven procedures, but, not "only."

Many chiropractic adjusting techniques have not been studied or have been the subject of minimal study. Most of our evidence for their use is anecdotal. If "only" evidence-based, proven procedures are taught or utilized, many of the techniques used daily to help thousands of people would be removed from college curricula. The same can be said for orthopedic and other physical tests.

Routine Vertebral Artery Testing and the Power of "Evidence Based"

In recent years, the evidence-based movement has scrutinized many of the tests we all use. This is fine as long as everyone remembers that a lack of studies for a procedure does not equate with evidence against the procedure. Let's search for a better way, but let's not throw everything else out before we find it.

A prominent example of finding a better way during our search is the decreased emphasis on vertebral artery testing. The initial use of the testing was, in a way, reactionary. Prior to the early 1980s, the tests were absent from our protocols. Millions of patients each year received cervical adjustments without incident of stroke. Patients who did have this adverse reaction were part of a minute minority within the chiropractic patient population.

However, negative publicity regarding chiropractic cervical adjusting and possible stroke mandated a response. The response was not evidence-based or proven, but at the time, it was the best response available. Dr. George stepped up to help his profession.

Unfortunately, our reaction, initiating routine vertebral artery screening, did not work. In some ways, it did not make sense. Routine screening for vertebral artery pathology implied the pathology and/or the adverse reaction is as common as heart disease or diabetes. We were sending conflicting messages – a behavior our accusers were quick to point out.

The evidence-based movement played an important part in de-emphasizing the role of vertebral artery tests. There is minimal evidence of their effectiveness. Litigation defense also played a role. Our conflicting stance on the morbidity of vertebral artery pathology and stroke following cervical adjustment had to be countered in a logical manner. The pathology and adverse event aren't common, so we should not emphasize their detection, especially through the use of deficient tests.

Hopefully, efforts similar to those above will be repeated along our path to realistic evidence-based instruction and practice.

"Significant" Physical Signs?

This topic is a serious one, but I would like to end on a note of levity. Believe it or not, the following signs actually appear in the literature, but they definitely may need to be evaluated for their clinical value through evidence-based studies. Common sense also may need to be applied in their evaluation.

The examples are from the world of medicine, not chiropractic. But other than tests associated with chiropractic adjusting techniques, the majority of examination procedures we use originated in medicine.

Alien's Sign: A belief held in rural areas of North Carolina, Tennessee, Virginia and West Virginia that malignancies are obtained as a result of alien visitation. Patients reporting this etiology may avoid reporting sightings or abductions, but will confirm their cancer is of alien origin. The areas of the involved states where morbidity is highest are said to have high concentrations of military and secret government facilities. (Note: Residents near Area 51 and Roswell, N.M., must have their own signs.)

Barking Madness Sign: An uncontrollable desire to bark like a dog, usually while dancing wildly in the absence of music. The sign is usually the result of ergot poisoning. A need to hide from demons is also associated with this sign. (*Note:* Not to be confused with Hair of the Dog Sign.)

Boo-Hoo Sign: The development of malaise and fever while visiting the Hawaiian Islands. (Note: Another thing that makes tourists even more obvious.)

Dooley's Sign: Crepitus from surgical emphysema that is similar to the feel of palpating a horsehair mattress. (*Note:* This sign would probably be observed with a higher rate of accuracy if horsehair mattresses were more readily available for comparison.)

Kuru Sign: Kuru is a fatal brain disease identified in patients who display trembling in conjunction with loss of ability to eat, talk or walk. The disease is a result of cannibalism. (*Note:* It could be said that presence of the sign will confirm at least two deaths.)

Stendhal Sign: An acute condition of altered mental status as a result of visiting museums and an overwhelming exposure to art in a short period of time. The sign is characterized by dizziness,

tachycardia and hallucinations. (Note: This sign may have a high rate of occurrence among art history majors.)

I'm not kidding; they're in the literature...

Resource

• White FA. *Physical Signs in Medicine and Surgery: An Atlas of Rare, Lost and Forgotten Physical Signs*. Philadelphia, PA: Museum Press Books, 2009.

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