

Update 22

Are we any closer to understanding the influence of spinal disturbances on the central nervous system?

The purpose of a recent review, published in JMPT, was to make a qualitative analysis of the literature pertaining to the possible relationship between low back pain (LBP) and other physical disorders.

Medline was searched from 1966 to December 2000, and this was followed by a search of the authors' personal collection of epidemiologic literature regarding low back pain.

A total of twenty-three articles were included. The authors concede that there was very little information in the studies regarding temporality, and therefore no conclusions could be drawn regarding causal mechanisms.

However, importantly, the authors did find there was evidence of a significant positive association between LBP and all of the following:

- headache/migraine.
- cardiovascular disease - angina pectoris/chest pain, intermittent claudication, calf pain on exertion, atherosclerotic changes, unspecified cardiovascular disease.
- respiratory problems - cough, breathlessness, unspecified respiratory disease.
- general health.
- gynecological disease
- irritable bowel syndrome
- allergy
- constipation
- neck pain

During the course of their discussion the authors state,

“LBP in itself could cause other diseases, for example, through somatovisceral reflexes or by spinal disturbances influencing the central nervous systems”.

The author's conclusions include the following important points -

- LBP cannot be regarded as a separate and unique entity.
- A purely biomechanical explanatory model for the development of LBP does not seem to be sufficiently broad.
- The nature of the relations between LBP and other diseases is still unclear but one possible explanation for the conclusions of the present systematic review is that spinal disturbances influence the central nervous system.

In answer to the question posed in the title to this ASRF Update, “Are we any closer to understanding the influence of spinal disturbances on the central nervous system?”, based on the findings of the present review, would have to be no. However, what this review does confirm for us is that spinal disturbances often occur in the presence of other health-related problems and that one possible explanation for such an association is that spinal disturbances, via somatovisceral reflexes, actually cause other health problems.

Reference:

Hestbaek L, Leboeuf-Yde C, Manniche C. Is low back pain part of a general health pattern or is it a separate and distinctive entity? A critical literature review of comorbidity with low back pain. *J Manipulative Physiol Therap* 2003;26:243- 53.