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Review

Is visceral manipulation beneficial for patients with low back pain? A systematic review of the literature

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Highlights

- Visceral manipulation may reduce non-specific low back pain in the short-term.
- Visceral manipulation may influence visceral range of motion.
- Findings were based on a small number of low-moderate quality studies.
- Clinicians should assess its effectiveness using valid/reliable outcome measures.

Abstract

Objectives

Visceral dysfunction (e.g., mobility or motility restriction) may be an underlying cause or contributing factor for some non-specific LBP and can be treated by osteopathic manipulative treatment (OMT). The aim of this registered systematic review (CRD42018100633) is to determine

the effectiveness of visceral mobilization for non-specific LBP and explore associations between changes in range of motion of the viscera and LBP symptoms.

Data sources

In November 2018 peer-reviewed studies published in English or German were retrieved from the following databases from inception: Medline, Cochrane library, Science Direct, PEDro, OSTMED.RD and Osteo web res.

Study selection

Articles identified during searching were screened using the eligibility criteria based on title and abstract. Studies were included following independent review of full-text versions.

Data extraction

Study quality appraisal (risk of bias tool and the PEDro score) and data extraction (means and standard deviations for patient-reported outcome measures and impairments - pain, function and ultrasound measurements of change in visceral mobility) were completed/extracted by two independent authors.

Data synthesis

Cohen's effect sizes were calculated. Meta-analysis was not performed due to heterogeneity in study populations and methods. A total of four RCT's were included with a moderate to good methodological quality. Two studies reported a significant short-term (<3 days) improvement in pain and visceral range of motion, although the clinical significance of these differences were unclear. Only one study reported significant differences in the long term (52 weeks) for pain and one for the medium term (6 weeks) for quality of life. Adverse events were poorly reported.

Keywords

Visceral manipulation; Visceral range of motion; Low back pain; Systematic review

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