Short-term dosing of manual therapies for chronic low back pain

To the Editor:

In their dose-response and efficacy trial of spinal manipulative therapy (SMT) in patients with chronic nonspecific low back pain (LBP), Haas et al. [1] concluded that 12 treatment sessions are the best dose within a 12-week end point. This was largely based on responder analysis wherein 50% of patients achieved at least 50% pain improvement with this dose of chiropractic treatment, which consisted primarily of high-velocity low-amplitude thrust techniques. In comparison with 0 sessions (control), significantly more patients responded to this 12-session regimen but not to the 6- or 18-session regimens.

By contrast, the OSTEOPATHic Health Outcomes In Chronic low back pain (OSTEOPATHIC) trial involving 455 patients demonstrated that comparable pain improvement can be achieved at 12 weeks with only six osteopathic manual treatment (OMT) sessions [2]. The significant pain reductions with OMT, which were clinically relevant according to guidelines established by the Cochrane Back Review group [3], were corroborated by decreased use of prescription rescue medication for LBP and high levels of satisfaction with back care during the trial among patients receiving OMT [2]. Moreover, subgroup analyses have demonstrated large treatment effects in reducing LBP and clinically important improvements in back-specific functioning with this 6-session OMT regimen in patients with high levels of baseline LBP [4]. There is limited information on cost-effectiveness of interventions for LBP [5], and clinical practice guidelines on SMT in the management of LBP vary across nations [6]. Thus, recommendations on dosing of manual therapies have potentially important implications not only for guiding future efficacy trials but also for assessing cost-effectiveness and refining clinical practice guidelines. A joint clinical practice guideline from the American College of Physicians and the American Pain Society issued a Grade B recommendation (based on good evidence for a moderate net benefit with SMT) that clinicians consider using SMT in patients with chronic LBP who do not improve with self-care options [7]. Another guideline on early management of persistent nonspecific LBP from the National Institute for Health and Care Excellence subsequently recommended offering a course of manual therapy comprising up to nine treatment sessions over a period of up to 12 weeks [8].

Why were Haas et al. [1] unable to replicate the short-term pain improvements achieved with only six OMT sessions [2], which were well within the National Institute for Health and Care Excellence dosing guideline? [8] A likely explanation is that the multimodal approach used in the OMT protocol did not rely primarily on high-velocity low-amplitude thrusts in the lumbar and transitional thoracic regions. Rather, it also included moderate-velocity moderate-amplitude thrusts; soft-tissue stretching, kneading, and pressure; myofascial stretching and release; positional treatment of myofascial tender points; and muscle energy treatment. These techniques were targeted at the lumbosacral, iliac, and pubic regions. This treatment philosophy is important because patients with chronic LBP have multifocal dysfunctions involving the lumbar, sacral, pelvic, and innominate regions that are associated with LBP and back-specific disability [9]. Nevertheless, several techniques in the OMT protocol have been accepted for LBP treatment by professional organizations representing chiropractors and physiotherapists [10]. Thus, the OSTEOPATHIC trial protocol, dosing, and results may be generalizable to other manual therapy practitioners.

References


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Evidence-based guidelines improperly assessed epidural injections

To the Editor:

The review article entitled “An evidence-based clinical guideline for the diagnosis and treatment of lumbar disc herniation with radiculopathy” by Kreiner et al. [1] was very interesting; however, we believe it suffers from factual inaccuracies that limit its ultimate applicability. Authors have used the old literature including a definition of clinical guidelines published in 2001 [2], although the Institute of Medicine has updated the definition of clinical guidelines [3].

In reference to epidural injections, as discussed in Questions 10 to 13, transformaminal epidural injections have been used as the primary procedures with duplicate references [4,5], whereas authors have not described caudal and interlaminar epidural injections it would seem [6,7]. Although neither approach is superior to the other, significant evidence through multiple long-term studies exists for fluoroscopic epidural injections with or without steroids in managing chronic lumbar radiculopathy [8]. In fact, based on randomized trials, fair to strong evidence is available for lumbar interlaminar epidural injections with five fluoroscopic trials for short-term efficacy [7,9–12] and two long-term efficacy trials [7,10], of which there were two trials of high quality [7,10] and three trials [9,11,12] of moderate quality.

For caudal epidural injections, the evidence was based on three trials [6,9,13] for short-term and long-term improvement efficacy with two high-quality trials [6,13] and one moderate-quality trial [9].

The evidence for transformaminal epidural injections for short- and long-term efficacy was based on seven randomized trials indicating efficacy with three high-quality trials [14–16] and four moderate-quality trials [9,12,17,18], with two high-quality trials [4,19] showing lack of efficacy.

Overall, this review comes up short in its analysis of epidural injections. The North American Spine Society and authors may want to consider providing more detailed reviews with appropriate evidence synthesis that would be helpful for practitioners, patients, and payers [20].

References