and CIs favored OMT in all studies, although several of the studies showed nonsignificant results. Limitations of this review include the heterogeneity and small sample sizes of the limited studies available.

Despite these limitations, the review suggests that OMT provides clinically relevant benefits for pregnant and/or postpartum women with LBP and PPP. OMT continues to demonstrate no additional risk of adverse outcomes in the third trimester of pregnancy. Additional research should continue to focus on the safety and efficacy of OMT in managing LBP in pregnancy and the postpartum period, as well as long-term follow-up for the patients. (doi:10.7556/jaoa.2018.108)

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References

Neuromuscular Manipulation Improves Pain Intensity and Duration in Primary Dysmenorrhea

Primary dysmenorrhea, defined as pain at or just before the onset of menses without organic disease, is one of the leading causes of pelvic pain leading to absenteeism at work or school and decreased quality of life.1 The pain is caused by increased production of prostaglandins, which lead to increased uterine tone and subsequent uterine contractions.2 Nonsteroidal anti-inflammatory drugs (NSAIDs) are the first-line treatment,3 but some women prefer not to use pharmacotherapy (PT). Many studies have explored alternative pain relief methods, including acupuncture, acupressure, transcutaneous electrical nerve stimulation, and exogenous thermotherapy.4 Researchers at D’Annuzio University in Chieti, Italy, recently investigated whether neuromuscular therapy (NMT) is as effective as PT for managing primary dysmenorrhea.

Sixty women were included in the study based on the presence of primary dysmenorrhea without the presence of organic disease and a visual analog scale (VAS) score greater than 6 on a 10-point scale. Women were randomly assigned to group A (NMT) or B (PT), with 30 participants per group. Evaluation was performed at the start of the first menstrual cycle (T0) and the start of the subsequent cycle (T1) using the VAS to measure pain intensity, the Brief Pain Inventory Questionnaire to assess how activities of daily living were affected, and the Menstrual Distress Questionnaire to evaluate menstrual cycle characteristics and symptoms. Group A began treatment at T0 twice weekly for 1 month with direct myofascial techniques; group B was instructed to take an NSAID (specifically ibuprofen and/or naproxen) for symptomatic relief. An additional follow-up evaluation occurred at the start of the third
menstrual cycle (T2) for 20 participants in group A to assess whether NMT provided any lasting effects.

Both treatment options had similar effects on improving pain intensity ($P < .05$ for both groups); however, the treatment type did not affect pain improvement ($r^2 = 0.008$). Both treatments also improved the duration of pain ($P < .05$), but NMT had a significantly greater effect than PT in reducing duration ($r^2 = 0.491$, $P < .05$). In the NMT follow-up group, VAS scores at T2 and T3 were not statistically different ($H = 0.95148$, $P = .2455$). In terms of pain duration, there was a significant difference between means at all time points ($H = 0.85551$, $P = .2455$).

This clinical trial demonstrates that both NMT and NSAIDs are effective treatment options for reducing intensity of pain in patients with primary dysmenorrhea. Neuromuscular therapy is superior in reducing intensity of pain over time compared with NSAIDs, but the treatment benefits do not extend to pain duration. For women with primary dysmenorrhea, NMT is an effective therapeutic alternative to PT. (doi:10.7556/jaoa.2018.109)

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References


Reducing Cesarean Delivery Rates and Length of Labor by Addressing Pelvic Shape


Although cesarean delivery rates are declining, approximately one-third of all expectant US mothers deliver via cesarean. In 2015, the cesarean delivery rate was 32%. The most common reason for a cesarean delivery in mothers with no previous cesarean deliveries and singleton vertex fetuses is lack of progress in labor. This diagnosis covers several causes, including fetopelvic disproportion, prolonged labor, and arrest of dilation.

A randomized controlled study was designed and conducted to focus on the mechanical aspects of labor. The study’s aim was to evaluate the effects of the peanut ball in labor time and rate of spontaneous vaginal births. The peanut ball is an intervention intended to widen the pelvis and optimally position the fetus in relation to the pelvis. Women who met the inclusion criteria (active labor, use of epidural, cephalic presentation) were randomly assigned to the peanut ball (n=107) or control group (n=94). Standard care was given to both groups. The peanut ball was placed between the laboring women’s legs in the test group immediately after receiving the epidural and remained in place until the cervix was completely dilated and effaced, passive descent was complete, and the woman was ready to actively push.

The study found that women in the peanut ball group had a significantly shorter first and second stage of labor. Additionally, the percentage of women who required cesarean surgery was significantly higher in the control group, with 21% of women in the control group requiring cesarean deliveries compared with 10% of women in the...