Group training reduces the risk of pregnancy-related lumbopelvic pain

Synopsis


Question: Does group exercise prevent lumbopelvic pain during and after pregnancy? Design: Randomised controlled trial. Setting: A University hospital clinic and three outpatient physiotherapy clinics in Norway. Participants: Three hundred and one healthy, nulliparous women at 20 weeks of pregnancy. Pregnancy complications and high risk for preterm labour were exclusion criteria. Interventions: Subjects were randomly allocated to a training group or a control group. Those in the training group attended a 60-minute weekly group exercise session for 12 weeks. Exercises were supervised by a physiotherapist and included low-impact aerobics, strengthening of pelvic floor, transversus abdominus, and upper/lower limb muscles, and stretches. Daily pelvic floor exercises at home were encouraged. Women in the control group were provided with usual GP or midwife care and were not discouraged from exercising. Outcomes: Outcomes were assessed at 36 weeks of pregnancy and three months after birth. Lumbopelvic pain was measured by self-report of pain in the lumbar spine, sacroiliac joints, or pubic symphysis ≥ once per week. Sick leave was measured by self-reported absence from work due to pain in pelvic girdle or lower back. Results: At 36 weeks of pregnancy, women in the training group were less likely to report lumbopelvic pain (absolute risk reduction 12.2%, 95% CI 1.0 to 23.3%). Three months after delivery the absolute risk reduction was 10.2% (95% CI –0.2 to 20.5%). The numbers needed to prevent lumbopelvic pain were one in eight women during pregnancy and one in 10 women after delivery. There was no significant difference between groups in self-reported sick leave at 36 weeks (absolute risk reduction 3.9%, 95% CI –5.6 to 13.2%). Compliance in the training group was high (81%). Conclusion: This study provides evidence that a 12-week physiotherapy exercise program provides a clinically worthwhile reduction in the risk of pregnancy-related lumbopelvic pain.

Commentary

Lumbopelvic pain related to pregnancy is a widespread problem that results in sick leave for a number of women and may persist for years after pregnancy and delivery (Albert et al 2001). Few studies have examined interventions to prevent pregnancy-related lumbopelvic pain (Stuge et al 2003). This paper addresses an important question often raised by patients and health care practitioners.

The current study concluded that group training during pregnancy was effective, as pain was prevented in one in eight women during pregnancy. This conclusion is based on one outcome: the presence of lumbopelvic pain once per week or more. A reduction in the intensity of pain would have further strengthened this conclusion. Also the effect was reduced three months postpartum with a risk difference in reporting lumbopelvic pain of 10%. There was no difference in sick leave between the groups, but there were very low levels of disability in both groups postpartum. Hence, there is reason to question whether this study provides evidence of a clinically worthwhile reduction in the risk of pregnancy-related lumbopelvic pain per se.

Furthermore, the main focus of the intervention was on pelvic floor muscle strength with additional general exercises. Interestingly, no association between pelvic floor muscle strength and lumbopelvic pain was found. Low back pain is stated to differ from pelvic girdle pain, and subgroups of pelvic girdle pain may exist (Albert et al 2001, O’Sullivan and Beale 2007a). Subgroups of patients may need different interventions (O’Sullivan and Beale 2007b), thus there is a possibility that group exercises may not be optimal either in preventing or treating lumbopelvic pain.

Given that the group training in this study reduced urinary incontinence (Mørkved et al 2003), the elimination of lumbopelvic pain for one in eight women can be seen as a welcome bonus. In light of current knowledge, including this study, one may still question whether other approaches could provide more optimal prevention and treatment of lumbopelvic pain in this population.

Britt Stuge
Ullevål University Hospital Centre for Clinical Research, Norway

References