

Acupuncture May Be Helpful for Pelvic Girdle Pain During Pregnancy

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From - <http://www.medscape.com/viewarticle/501703?rss>

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Release Date: March 21, 2005; Valid for credit through March 21, 2006

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March 21, 2005 — Stabilizing exercises and acupuncture are helpful for pelvic girdle pain during pregnancy, according to the results of a randomized, single-blind trial published in the March 18 Online First edition of the *British Medical Journal*.

"Standard treatment may consist of a pelvic belt, a home exercise programme, and patient education," write Helen Elden, from the Sahlgrenska Academy, East Hospital, in Gothenburg, Sweden, and colleagues. "Current treatment increasingly includes stabilising exercises and acupuncture. However, insufficient evidence is available to give strong recommendations for or against any particular treatment modality for pelvic girdle pain."

At East Hospital and 27 maternity care centers in Sweden, 386 pregnant women with pelvic girdle pain were randomized to six weeks of standard treatment (n = 130), standard treatment plus acupuncture (n = 125), or standard treatment plus stabilizing exercises (n = 131). The primary outcome measure was pain on the visual analog scale (VAS), and the secondary outcome measure was assessment of severity of pelvic girdle pain by an independent examiner before and after treatment.

After treatment, the group receiving stabilizing exercise had less pain than the standard group in the morning (median difference, 9; 95% confidence interval [CI], 1.7 to 12.8; $P = .0312$) and in the evening (median difference, 13; 95% CI, 2.7 to 17.5; $P = .0245$).

The group receiving acupuncture had less pain in the evening than did the stabilizing exercise group (median difference, -14; 95% CI, -18.1 to -3.3; $P = .0130$). The acupuncture group also had less pain than the standard treatment group both in the morning (median difference, 12; 95% CI, 5.9 to 17.3; $P < .001$) and in the evening (median difference, 27; 95% CI, 13.3 to 29.5; $P < .001$). The independent examiner determined that reduction of pelvic girdle pain was greatest in the acupuncture group.

"Acupuncture and stabilizing exercises constitute efficient complements to standard treatment for the management of pelvic girdle pain during pregnancy," the authors write. "Acupuncture was superior to stabilising exercises in this study.... Each method needs to be evaluated individually, however, before combinations can be recommended for future research, and only after that should recommendations for treatment be made."

The Vardal Foundation, the Dagmar Foundation, the Trygg-Hansa Insurance Company, and the Sahlgrenska University Foundation funded this study. The authors report no competing interests.

BMJ. Published online March 18, 2005.

Learning Objectives for This Educational Activity

Upon completion of this activity, participants will be able to:

- Describe the features of pelvic girdle pain in pregnancy.
- Compare the effect of standard treatment alone with stabilizing exercises or with acupuncture on pelvic girdle pain in pregnancy.

Clinical Context

Risk factors for pelvic girdle pain in pregnancy include strenuous work, previous low back pain (LBP), and previous pelvic girdle pain. It is a common complaint, and one third of affected women experience severe pain, according to the authors of the current study. Pain is experienced between the posterior iliac crest and the gluteal fold, especially in the area of the sacroiliac joints. Pain may radiate to the posterior thigh and the pubic symphysis. The pain reduces functional capacity for standing, walking, and sitting. Pain remains a serious problem after pregnancy in approximately 7% of women.

Currently, standard treatment consists of a pelvic belt, home exercises, and patient education. Stabilizing exercises have been advocated to reduce dysfunction at the muscle-tendon-fascia system that controls force closure of the pelvis. Studies of acupuncture for LBP in pregnancy have shown some benefits, but the stimulation given has been weak and the pain condition inadequately specified, according to the authors. This open, controlled randomized trial of 386 pregnant women compares the effects of standard treatment with and without adjunctive stabilizing exercises or acupuncture for six weeks on well-defined pelvic girdle pain as experienced by patients and independently assessed by a blinded observer.

Study Highlights

- Inclusion criteria were healthy women at 12 to 31 weeks of gestation with singleton fetuses with pregnancy-related pelvic girdle pain from 1 hospital and 27 maternity care centers in one country.
- Exclusion criteria were other pain conditions, systemic disorders, or contraindications to treatment.
- During a 1-week baseline period, patients were assessed by a validated questionnaire and diary for pain. They also received a physical assessment that included the posterior pelvic pain provocation test, Patrick's fabere test, a modified Trendelenburg's test, and pubic symphysis palpation by an experienced physiotherapist.
- 3 experienced physiotherapists gave standard treatment, two experienced acupuncturists gave acupuncture treatment, and 2 experienced physiotherapists gave stabilizing exercises for 6 weeks.
- 130 patients were assigned to standard treatment, 125 to standard treatment with acupuncture, and 131 to standard treatment with stabilizing exercises. The numbers of patients who completed pain dairies 1 week after the end of treatment were 108, 107, and 106, respectively.
- Standard treatment was made up of advice on activities of daily living to reduce fear and increase activity, a pelvic belt, and a home exercise program to increase strength in the abdominal and gluteal muscles.
- Acupuncture consisted of two sessions per week at 10 segmental points and 7 extrasegmental points with needles inserted to a depth of 15 to 70 mm to evoke De Qi (a needle sensation related to acupuncture). Needles were left for 30 minutes and manually rotated every 10 minutes. Prior experience of patients with acupuncture and patient expectations of the treatment effect were not reported.
- There was no sham acupuncture group.
- Stabilizing exercises consisted of control of deep lumbopelvic muscles with training of superficial muscles in dynamic exercises to improve mobility, strength, and endurance for a total of 6 hours over 6 weeks. Massage, effleurage, and petrissage of hip extensors and rotators were included in the treatment.

- Patient adherence to standard and stabilizing exercise treatments was not reported.
- The primary outcome measure was patient assessment of pain using a 100-point VAS every morning and evening.
- Secondary outcomes were an independent blinded examiner's assessment of recovery from symptoms.
- Analysis was by intent to treat.
- Baseline characteristics were similar in the 3 groups. Mean age was 30 years, mean gestation was 24 weeks, and 25% were primiparous. 55% of the women worked full time, 9% smoked, and 70% had experienced previous LBP. 40% were physically active more than twice per week before the pregnancy. 40% lifted heavy objects more than 10 times daily.
- Patients had one-sided sacroiliac pain, one-sided sacroiliac pain combined with pubic symphysis pain, and double-sided sacroiliac pain.
- At the end of treatment, the stabilizing exercise group had less pain than the standard group in the morning (median difference, 9; 95% CI, 1.7 to 12.8; $P = .0312$) and the evening (median difference, 13; 95% CI, 2.7 to 17.5; $P = .0245$).
- The acupuncture group had less pain in the evening compared with the stabilizing exercise group (median difference, -14; 95% CI, -18 to -3.3; $P = .0130$).
- The acupuncture group had less pain than the standard group in the morning (median difference, 12; 95% CI, 5.9 to 17.3; $P < .001$) and in the evening (median difference, 27; 95% CI, 13.3 to 29.5; $P < .001$).
- Attenuation of pelvic girdle pain as assessed by the independent assessor was greatest in the acupuncture group.

Pearls for Practice

- Pelvic girdle pain during pregnancy is experienced between the posterior iliac crest and the gluteal fold, especially in the area of the sacroiliac joints. Pain may radiate to the posterior thigh and the pubic symphysis and may cause reduced functioning.
- In pregnant women with well-defined pelvic girdle pain, acupuncture with standard treatment is superior to stabilizing exercises with standard treatment and standard treatment alone for pain control.