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DOES PELVIC FLOOR MUSCLE TRAINING DURING PREGNANCY HAVE AN EFFECT ON LABOUR?

Hypothesis / aims of study

Intensive pelvic floor muscle training during pregnancy has been shown to prevent urinary incontinence (1, 2), and pregnant women are commonly encouraged to train their pelvic floor muscles. However, there is a myth that pelvic floor muscle training during pregnancy may cause prolonged labour. In theory, strong and voluminous pelvic floor muscles can obstruct labour. An opposite theoretical assumption is that training of the pelvic floor muscles may improve muscle strength and awareness and produce strong, flexible and well-controlled muscles that will facilitate labour.

The primary aim of this randomised controlled trial was to assess if pelvic floor muscle training during pregnancy could prevent urinary incontinence. The results have been reported and published previously. This report deals with secondary outcomes of the trial, related to labour. The aim was to examine a possible effect of pelvic floor muscle training during pregnancy on labour.

Study design, materials and methods

A single-blind randomised controlled trial was conducted at one University hospital and three outpatient physiotherapy clinics in a primary care setting. The Regional Medical Ethics committee approved the trial.

Nulliparous women attending a routine ultrasound scan at 18 weeks of pregnancy were invited to participate in the trial. In all 342 women gave signed consent to participate, 41 women were excluded or withdrew before the first examination leaving 301 healthy nulliparous women that were randomly allocated to a training group (148) or a control group (153).

The training group followed a structured training program with pelvic floor muscle exercises between 20 and 36 weeks of pregnancy. Women in the training group trained with a physiotherapist in groups of 10-15 women for 60 minutes once per week for a period of 12 weeks. Group training was performed in lying, sitting, kneeling and standing positions with legs apart to emphasise specific strength training of the pelvic floor muscles and relaxation of other muscles. Body awareness, breathing and relaxation exercises and strength training for the abdominal, back and thigh muscles were performed to music between positions. In addition, the women were encouraged to perform 8-12 intensive pelvic floor muscle contractions twice per day at home.

The control group received the customary information given by their midwife or general practitioner.

Main outcome measures were duration of the first and the second stage of labour (3), operative delivery for prolonged second stage, and episiotomy. Neonatal size, Apgar score and umbilical cord pH were also registered.

Results

There was no difference between groups in the duration of the first stage of labour (median values 260 min v 260 min, p = 0.57). The women in the training group had somewhat shorter duration of the second stage of labour (median values 35 min v 45 min), but the difference was not statistically significant (log rank test p=0.3). The neonates were slightly smaller, but there was no difference in Apgar score or umbilical cord pH.

Interpretation of results

Intensive pelvic floor muscle training during pregnancy does not cause prolonged labour.

Concluding message

Pelvic floor muscle training during pregnancy does not seem to effect labour negatively. The myth that pelvic floor muscle training during pregnancy will cause prolonged labour was not confirmed in this trial.

References

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