

DO ANTENATAL PELVIC FLOOR TRAINING AFFECT THE OUTCOME OF LABOUR? A RANDOMISED CONTROLLED TRIAL

Hypothesis / aims of study

It is thought that antenatal Pelvic Floor Training (PFT) might produce an excessively strong pelvic floor resulting in obstructed/prolonged labour and instrumental delivery. However, some birth attendants believe that training of the pelvic floor muscles may produce stronger, well-controlled muscles that will facilitate rotation of the fetal head, shorten the duration of labour, and reduce the chance of requiring an instrumental delivery. This secondary analysis of a larger study ⁽¹⁾ assesses whether supervised PFT antenatally will have an effect on the duration of labour and the mode of delivery in primigravidae.

Study design, materials and methods

Two hundred and sixty-eight (268) primigravidae were recruited from the antenatal clinic in a UK NHS Trust Teaching Hospital at approximately 20 weeks gestation. They were randomised to supervised PFT or an untreated control group. The median age was 28 years (range: 16-47 years). Participants randomised to supervised PFT (n = 139) attended a physiotherapist at monthly intervals from 20 weeks until delivery. PFT comprised three repetitions of eight contractions each held for six seconds, with two minutes rest between repetitions. These were repeated twice daily. At 34 weeks gestation the number of contractions per repetition was increased to 12. The primary outcome measure was the duration of the second stage of labour (total, passive and active) among women with spontaneous onset of labour after 37 weeks with a singleton fetus in the cephalic position. The second stage of labour begins when cervical dilatation is complete and ends with fetal expulsion. We examined the duration of the "active" second stage (pushing time) as well as its total duration; including the initial period of "passive" descent of the fetal head. This identification of the two different phases of the second stage would help clarify any effect of supervised PFT on the duration of each phase.

Results

There was no difference in duration of the second stage of labour between the 2 groups (73 minutes in PFT group v 78 minutes in controls, $p = 0.57$). The duration of the active (pushing) second stage was not significantly different either (52 minutes PFT v 53 minutes controls, $p = 0.71$). There was no difference in the need for an instrumental delivery (17.7% PFT and 22.9% controls, $p = 0.40$). Epidural rates, birth weight and other labour and delivery factors were no different between the groups.

Interpretation of results

Although PFT during pregnancy results in improved muscle control and flexibility, it does not appear to facilitate or obstruct labour. Antenatal PFT does not appear to result in a higher incidence of prolonged labour or instrumental delivery (rotational or non-rotational) compared with controls.

Concluding message

Our data agree with those of others ⁽²⁾ suggesting that antenatal PFT does not result in a higher incidence of prolonged labour or instrumental delivery compared with controls.

References

- (1) Prevention of postpartum stress incontinence in primigravidae with increased bladder neck mobility: a randomised controlled trial of antenatal pelvic floor exercises. BJOG 2002; 109:68-76.
- (2) Randomised controlled trial of pelvic floor muscle training during pregnancy. BMJ 2004; 329:378-80.