Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women (Review)

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[Intervention Review]

Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women

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ABSTRACT

Background

About a third of women have urinary incontinence and up to a tenth have faecal incontinence after childbirth. Pelvic floor muscle training is commonly recommended during pregnancy and after birth both for prevention and treatment of incontinence.

Objectives

To determine the effect of pelvic floor muscle training compared to usual antenatal and postnatal care on incontinence.

Search methods

We searched the Cochrane Incontinence Group Specialised Register (searched 24 April 2008) and the references of relevant articles.

Selection criteria

Randomised or quasi-randomised trials in pregnant or postnatal women. One arm of the trials needed to include pelvic floor muscle training (PFMT). Another arm was either no pelvic floor muscle training or usual antenatal or postnatal care. The pelvic floor muscle training programmes were divided into either: intensive; or unspecified if training elements were lacking or information was not provided. Reasons for classifying as intensive included one to one instruction, checking for correct contraction, continued supervision of training, or choice of an exercise programme with sufficient exercise dose to strengthen muscle.

Data collection and analysis

Trials were independently assessed for eligibility and methodological quality. Data were extracted then cross checked. Disagreements were resolved by discussion. Data were processed as described in the Cochrane Handbook. Three different populations of women were considered separately: women dry at randomisation (prevention); women wet at randomisation (treatment); and a population-based approach in women who might be one or the other (prevention or treatment). Trials were further divided into: those which started during pregnancy (antenatal); and after delivery (postnatal).

Main results

Sixteen trials met the inclusion criteria. Fifteen studies involving 6181 women (3040 PFMT, 3141 controls) contributed to the analysis. Based on the trial reports, four trials appeared to be at low risk of bias, two at low to moderate risk, and the remainder at moderate risk of bias.

Pregnant women without prior urinary incontinence who were randomised to intensive antenatal PFMT were less likely than women randomised to no PFMT or usual antenatal care to report urinary incontinence in late pregnancy (about 56% less; RR 0.44, 95% CI 0.30 to 0.65) and up to six months postpartum (about 30% less; RR 0.71, 95% CI 0.52 to 0.97).

Postnatal women with persistent urinary incontinence three months after delivery and who received PFMT were less likely than women who did not receive treatment or received usual postnatal care (about 20% less; RR 0.79, 95% CI 0.70 to 0.90) to report urinary incontinence 12 months after delivery. It seemed that the more intensive the programme the greater the treatment effect. Faecal incontinence was also reduced at 12 months after delivery: women receiving PFMT were about half as likely to report faecal incontinence (RR 0.52, 95% CI 0.31 to 0.87).

Based on the trial data to date, the extent to which population-based approaches to PFMT are effective is less clear (that is, offering advice on PFMT to all pregnant or postpartum women whether they have incontinence symptoms or not). It is possible that population-based approaches might be effective when the intervention is intensive enough.

There was not enough evidence about long-term effects for either urinary or faecal incontinence.

Authors' conclusions

There is some evidence that PFMT in women having their first baby can prevent urinary incontinence in late pregnancy and postpartum. In common with older women with stress incontinence, there is support for the widespread recommendation that PFMT is an appropriate treatment for women with persistent postpartum urinary incontinence. It is possible that the effects of PFMT might be greater with targeted rather than population-based approaches and in certain groups of women (for example primiparous women; women who had bladder neck hypermobility in early pregnancy, a large baby, or a forceps delivery). These and other uncertainties, particularly long-term effectiveness, require further testing.

PLAIN LANGUAGE SUMMARY

Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in pregnant women and women who have recently given birth

About a third of women have urine leakage, and up to a tenth of women leak stool (faeces), after childbirth. Pelvic floor muscle training is commonly recommended during pregnancy and after birth for prevention and treatment of incontinence. This is a programme of exercises that women can do several times a day to strengthen their pelvic floor muscles. They are usually taught by a health professional such as a physiotherapist. The review of trials showed that women who do not leak urine while pregnant can reduce urine leakage for the first six months after childbirth by doing the exercises during and after pregnancy. Exercises can also help women who do leak urine after the birth and they may help them leak less stool. They may be helpful for women who are at higher risk of urine leakage, such as after having a large baby or a forceps delivery. However, there was not enough evidence to say if these effects last after the first year.