Does antenatal pelvic floor muscle training prevent stress urinary incontinence in primi-gravidae?

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Agur WI, Steggles P, Waterfield M, Freeman R; The long-term effectiveness of antenatal pelvic floor muscle training: Eight-year follow up of a randomised controlled trial. BJOG 2008;115:985-90.

SUMMARY

In this study, Agur, et al., [1] made an effort to assess the effectiveness of antenatal pelvic floor muscle training (PFMT) on stress urinary incontinence (SUI) over a period of 8 years. This study was a follow-up of a randomized, controlled trial conducted by Reilly, et al.[2] The study involved primi-gravidae with bladder neck mobility who were randomly assigned to either monthly PFMT supervised by a physiotherapist or verbal advice and/or a leaflet on PFMT. Out of 230 women included in the original study, 164 (71%) responded after 8 years. Participants were asked about the presence of SUI, impact on quality-of-life, frequency of performance of PFMT, and details of subsequent deliveries. The prevalence of SUI after 8 years was assessed using the symptom questionnaire used in the original study. The significant improvement in postnatal SUI originally shown in the PFMT group compared with controls (19 vs. 33%; P=0.02) at 3 months was not evident 8 years later (35 vs. 39%; P=0.7). On direct questioning, 68% of the patients in the study group claimed that they still performed PFMT as taught during the study, with 38% of them performing this twice or more per week. There was no difference in outcome between those who performed PFMT twice or more per week compared with those performing PFMT less frequently. There were no differences in quality-of-life domains between the study and the control groups after 8 years. On multivariate analysis, only the presence of SUI at 3 months was predictive of SUI at 8 years.

COMMENTS

Antenatal PFMT has been shown to reduce the incidence of postnatal SUI. Agur, et al.,[1] present results of the longest follow-up of a cohort of participants who undertook antenatal PFMT with a satisfactory 71% response rate. The authors also attempted to look at the compliance of PFMT and the effects of subsequent pregnancies on SUI. The authors have confirmed that the initial benefit of PFMT on the incidence of SUI is not maintained over a long period of time, regardless of whether women continue with PFMT. Contrary to the studies,[3] authors have not found a significant difference between assisted delivery, spontaneous delivery, and cesarian section as risk factors for SUI on long-term follow-up.

The authors have shown a beneficial effect of PFMT at 3 months, which may be due to supervised antenatal PFMT. Subsequently, during follow-up after 8 years, they have not noticed the beneficial effects of PFMT; the possible causes of which may be lack of supervision, poor compliance
and incorrect technique while the women in the control group were doing regular correct PFMT. Moreover, long-term follow-up was not the primary goal at the start of the study; however, patients when randomly contacted after a long time are usually associated with bias. With an overall response rate of 71%, only 57% of the women in the PFMT group and 66% of the women in the control group responded, which could add to this bias.

The National Institute of Clinical Excellence (NICE) recommends PFMT for all women in their first trimester for prevention of SUI as pregnancy and vaginal birth are strong risk factors for SUI. Various prospective, randomized, controlled trials have investigated this question[4,5] producing a Grade B recommendation supporting the effectiveness of supervised antenatal PFMT in primiparous women.[6]

In these trials, the women in the PFMT group had less postpartum incontinence, although this was on short-term follow-up.

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