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A COCHRANE SYSTEMATIC REVIEW OF THE USE OF BIOFEEDBACK, PELVIC FLOOR MUSCLE TRAINING AND ELECTRICAL STIMULATION FOR FAECAL INCONTINENCE.

Aims of Study

Faecal incontinence is a problem affecting over 1% of adults [1]. It is a particularly embarrassing and distressing condition with significant medical, social and economic implications. Pelvic floor muscle training, electrical stimulation and biofeedback therapy have been used to treat the symptoms of people with faecal incontinence. However, standards of treatment are still lacking and the magnitude of alleged benefits has yet to be established. Therefore, the aim of this review was to systematically search for and combine evidence from all relevant randomised controlled trials on the effects of anal sphincter/pelvic floor muscle training and/or biofeedback and/or electrical stimulation for the treatment of faecal incontinence in adults.

Methods

- Search strategy: We searched the Cochrane Incontinence Group trials register, the Cochrane Controlled Trials Register, Medline, Embase and all reference lists of relevant articles up to November 1999.
- Selection criteria: All randomised or quasi-randomised controlled trials comparing anal sphincter exercises and/or biofeedback and/or electrical stimulation in adults with faecal incontinence.
- Data collection: Three reviewers assessed the methodological quality of eligible trials and two reviewers independently extracted data from included trials. A wide range of outcome measures was considered.

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Results

Only five studies were identified with a total of 109 participants. No randomised studies of implanted electrical stimulators were found. The methodological quality of included trials was generally poor or uncertain. All trials were small and employed a limited range of outcome measures. None had follow-up beyond the end of the randomised trial period. There was a wide variation between trials in the type of participants, type of interventions, use of outcome measures and duration of treatment.

Only two trials provided data in a form suitable for statistical analyses. These suggested that rectal volume discrimination training improves continence more than sham training (cure: OR 0.11 95% CI 0.01 to 0.90; improvement: OR 0.17 95% CI 0.03 to 0.83, [2] and that anal biofeedback combined with exercises and electrical stimulation provides more short-term benefits than vaginal biofeedback and exercises for women with obstetric-related faecal incontinence (cure: OR 0.22 95% CI 0.06 to 0.77; improvement: OR 0.08 95% CI 0.02 to 0.37) [3]. Further conclusions are not warranted from the available data.

Conclusions

There have been at least 40 uncontrolled studies of sphincter exercises, biofeedback therapy or electrical stimulation in the management of people with faecal incontinence. These suggest that such interventions may have a therapeutic effect. However, the limited number of controlled trials together with their methodological weaknesses can neither confirm nor disprove this impression. Larger well-designed trials are needed to establish and optimise the therapeutic effects of these interventions. Our review also highlighted the need for standardisation of terminology and for validation of outcome measures for patients with faecal incontinence.

References

- 1 Community-based prevalence of anal incontinence. JAMA 1995;274(7):559-561.
- 2 Investigation of the mode of action of biofeedback in the treatment of faecal incontinence. Digestive Diseases & Sciences 1990; 35(10):1291-1298
3. A prospective, randomized study comparing the effect of augmented biofeedback with sensory biofeedback alone on fecal incontinence after obstetric trauma. Diseases of the Colon and Rectum 1999; 42:753-761