A meta-analysis of biofeedback treatment for anismus
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Authors' objectives
To evaluate the clinical effectiveness of biofeedback used in the management of anismus.

Searching
MEDLINE was searched from 1980 to 1994 using the keywords 'biofeedback', 'constipation' and 'anismus'. Reference lists of retrieved papers were checked for additional material.

Study selection
Study designs of evaluations included in the review
Controlled and before-and-after studies were included.

Specific interventions included in the review
Biofeedback: electromyography (EMG), manometry (MM) and defecography (DC). Both in-patient and out-patient situations were considered.

Participants included in the review
Patients with anismus diagnosed using EMG, MM, DC and colon transit time. One study involved children and one included female patients only.

Outcomes assessed in the review
Self-perceived success; number of defacations following biofeedback, laxative use and symptoms of constipation.

How were decisions on the relevance of primary studies made?
All papers providing data on subjective outcomes were included. It is not reported how such decisions were made.

Assessment of study quality
The authors do not report a method for assessing validity.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
A graph gives positive response rates for each study. The success rates were combined for all studies and for all studies using EMG.

How were differences between studies investigated?
Total positive response to biofeedback, and response to EMG alone, are considered. The differences in the study design and methodology employed, and also the types of patients included, are discussed.

Results of the review
Two controlled studies and 9 before-and-after studies (137 patients).
The success rate, in terms of subjective measures, varied between 18 and 100%. When the studies involving EMG were combined (106 patients), 82% of patients categorised the intervention as successful. Graphical results from two trials suggest MM was less successful (about 20%).

Authors' conclusions
The collective evidence is suggestive and promising, but does not allow firm conclusions to be drawn regarding the clinical effectiveness of relaxation as a treatment for anismus. The findings could also be compatible with a powerful placebo-effect of biofeedback therapy. The effectiveness of biofeedback in alleviating the symptoms of anismus should be evaluated in a randomised, placebo-controlled, double-blind trial.

CRD commentary
It is not possible to evaluate the rigour of the review because few methodological details are given. Databases other than MEDLINE may have provided additional studies. The authors are correct in refraining from drawing strong conclusions from the results of the included studies.

Implications of the review for practice and research
Further well-designed studies are needed before biofeedback can be recommended as a treatment for anismus.

Bibliographic details

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.