Incontinence rates after cutting seton treatment for anal fistula
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CRD summary
This review concluded that the high rates of anal incontinence for anal fistula that used cutting setons suggested this therapy can damage the continence musculature. Possible inappropriate analysis of studies of weak design and unknown quality and the possibility of bias and error suggested the authors' conclusions should be viewed with caution.

Authors' objectives
To investigate the incidence of anal incontinence after use of cutting seton treatment for anal fistula.

Searching
MEDLINE was searched to January 2008. Google Scholar search engine was employed. Search terms were reported. Articles in English, Spanish and Italian were examined.

Study selection
All articles that described cutting setons (even if other techniques were also reported) were eligible for inclusion. Studies in which incontinence rates after use of a cutting seton could not be distinguished from other techniques were not included. It was clear that the review focused on patients with anal fistulae. The included studies were conducted in a wide variety of countries. The type of seton used varied (suture, rubber bands, rubber gloves, drains and cable ties were used). Various techniques for tightening the seton were reported, including knots and rubber bands. The review defined cutting seton treatment as any seton designed to cut through tissue using mechanical or chemical methods. Length of time between tightening varied from no tightening to monthly. The way in which incontinence was described varied between studies.

The authors stated neither how studies were selected nor how many reviewers performed the selection.

Assessment of study quality
The authors did not perform validity assessment.

Data extraction
Incontinence rates were extracted. The authors did not state how many reviewers performed the data extraction.

Methods of synthesis
An overall average rate of incontinence was calculated for all studies, for different classifications of fistulae and for fistulae of differing aetiology. Severity of incontinence was reported.

Results of the review
Thirty-seven studies were included (n=1,460; range 3 to 397). The study designs included were unclear, but three were prospective randomised trials (n=235), 15 were prospective (one-armed), case reports or consensus drafts (n=796) and 19 were retrospective (one-armed) (n=429).

The average rate of incontinence was 12% (range 0% to 67%) (37 studies). Incontinence rates were 20.5% for trans-sphincteric (18 studies, n=348 patients), 67% for supra-sphincteric (five studies, n=15 patients) and 37% for extra-sphincteric fistulae (five studies, n=25 patients). Liquid stool was the most common type of incontinence (69%, 19 studies) followed by flatus incontinence (46%, 14 studies). Incontinence associated with the treatment of non-specific cryptoglandular fistulas was 16% (13 studies).

Authors' conclusions
The high rates of incontinence with use of cutting setons suggested that this therapy can damage the continence
musculature. Other techniques should be preferred where available, especially for higher fistulas.

**CRD commentary**
The study question was supported by inclusion criteria for intervention and outcomes; criteria for participants were implied. The inclusion criteria for study design were broad. Limiting the search to studies published in any of three languages identified through one database and Google may have led to missed studies and language and publication biases. The review process was not described so any steps taken to reduce reviewer error and bias were unknown. Study quality was not assessed; included studies were predominantly of weaker study designs. Some subgroup analyses were based on small numbers of patients. The included studies were heterogeneous in terms of intervention and location and it was unlikely that simple pooling of percentages was appropriate. In light of possible inappropriate analysis of studies of weak design and unknown quality and possible bias and error the authors’ conclusions should be viewed with caution.

**Implications of the review for practice and research**

**Practice:** The authors stated that further consideration should be given to sphincter-sparing treatments.

**Research:** The authors did not state any implications for research.

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One author appeared to be employed by RDRR Biotech Consulting, Lafayette, Indiana, USA

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