Bowel resection for deep endometriosis: a systematic review
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CRD summary
The review concluded that segmental bowel resection represented a widely accepted therapeutic option for deep endometriosis with bowel involvement, although this appeared to be based on attitude rather than actual data. The review had some methodological problems, but the authors’ conclusions were suitably cautious and appear appropriate.

Authors' objectives
To review the outcomes and complications associated with segmental bowel resections in patients with endometriosis, according to level of resection and the volume of the nodule.

Searching
EMBASE, MEDLINE, and Web of Knowledge were searched from 1997 to November 2009 for articles published in English. Search terms were reported.

Study selection
Studies of segmental bowel resections in patients with endometriosis were eligible for inclusion. Studies had to describe at least five bowel resections. Eligible studies also had to report on at least three of the following criteria: surgical technique used, number of patients, duration of surgery, indication for surgery, localisation and diameter of nodules, other lesions, complications, confirmation by pathology, recurrences, pain, and fertility after six and 12 months. Definitions were provided in the review.

The included studies considered mainly rectum resections (88%, where reported), although sigmoid resections were also included. The proportion of procedures undertaken by laparoscopy varied according to the age of the study; earlier studies (1997 to 2000) used less than 10% laparoscopy, whilst later studies (2005 to 2009) used over 80% laparoscopy. The indication for bowel resection varied across studies; some studies resected prior to surgery based on examinations and tests, while other studies made the decision to resect during surgery or did not clearly specify.

Two authors independently performed study selection Disagreements were resolved by discussion.

Assessment of study quality
The authors did not state that they assessed study quality.

Data extraction
Two reviewers extracted data on pain relief, recurrences, fertility, other outcomes and complications.

Methods of synthesis
A narrative synthesis was presented, grouping studies by the outcome criteria reported.

Results of the review
Thirty-four studies were included in the review (n=1,889 segmental bowel resections). The study sample size ranged from six to 436 patients.

The median operating time varied from 101 minutes to 436 minutes, and the hospitalisation duration varied from 4 to 14 days. Confirmation of deep endometriosis by pathology was reported in 16 studies, and varied widely across studies.

The proportion of women pain free at one-year ranged from 71.4 to 93.6%. The recurrence of pain requiring surgery ranged from zero to 34% (pain was not reported prospectively). The recurrence of symptoms between two and five years ranged from 4 to 54%. Proven bowel endometriosis recurrence ranged from zero to 25%.

Thirty articles reported complication rates after surgery. Overall complications occurred in 22.2% of women, major
complications occurred in 11% of women and minor complications occurred in 14.7% of women. The major complications were severe bowel complications (such as leakage), haemorrhage and infections. Minor complications were predominantly temporary bowel or bladder dysfunction.

Authors’ conclusions
Segmental bowel resection represented a widely accepted therapeutic option for deep endometriosis with bowel involvement, although this appeared to be based on attitude rather than actual data.

CRD commentary
Inclusion criteria for the review were broadly defined. Several relevant data sources were searched. There was the potential for language bias, as only English language articles were included. Publication bias was not assessed and could not be ruled out. Attempts were made to reduce reviewer error and bias during study selection and data extraction.

Quality assessment was not formally conducted, although the authors acknowledged the poor quality of data and lack of consistent data reporting. Studies were synthesised narratively, which appeared appropriate given the heterogeneity in patients, interventions and reported outcomes.

The review had some methodological problems, but the authors’ conclusions were suitably cautious and appear appropriate.

Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors stated that, in order to facilitate meta-analysis in this area, journals need to adopt a standard reporting of indications, surgery and outcome, size of nodule and localisations. They stated that it is unrealistic to start randomised controlled trials in this area, so careful reporting of current available data is needed.

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