



Title	Outcomes of Transanal Endoscopic Surgery in Patients With Rectal Tumors
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Aim

To compare the benefits and complications of transanal endoscopic microsurgery (TEM) with radical surgery and other local resection procedures in patients with early-stage rectal adenoma and cancer.

Conclusions and results

Two of the original 3 papers with a control group were retrieved from the previous, good-quality systematic review. These two included a clinical trial and a cohort study, both of poor quality. A new search identified 74 articles from which we selected four: 1 medium quality, controlled clinical trial and 3 cohort studies with limitations in internal validity. In most of the new papers comparing TEM versus local surgical techniques (3 studies), the only endpoints considered were postoperative complications and incomplete tumor resection. Both of these events were less frequently reported in TEM patients. We found 3 new studies that compared TEM and radical surgical techniques and added these to the 2 papers from the previous review. The 5 studies show that most endpoints have better outcomes in TEM patients, both as regards technical endpoints and survival. The studies, however, reveal discrepancies in recurrence rates. All results should be interpreted with caution since the studies present major flaws in internal validity. In particular, 87% of patients undergoing radical surgery had rectal cancer, compared to only 50% of the TEM patients. Also, no adjustments were made for possible confounding factors in the comparative analysis of the groups. Assessment of functional outcomes with the different techniques was only vaguely addressed.

The quality of evidence on the efficacy of TEM in comparison to other surgical options does not currently enable recommendations to be issued for more widespread use of the technique.

Methods

The literature was systematically reviewed to update a previous review of articles published up to August 2002.

The search strategy was validated and updated to July 2006, running searches on MEDLINE, PreMEDLINE, and EMBASE. The Cochrane Library, INAHTA, and the Internet were also searched.

Inclusion criteria for the articles were as follows: study design (RCTs and controlled observational studies), population characteristics (patients over 18 years of age with rectal tumors – early-stage adenomas and carcinomas), procedures for comparison (TEM vs radical surgery and other local resection procedures), and outcomes (at least one of the following: duration of surgery, blood loss, analgesia use, hospital stay, rate of conversion to radical surgery, complications, mortality, recurrence, survival, anus-rectal dysfunction, and presence of residual tumor). Studies were critically appraised by using the CASPe scale for systematic reviews and clinical trials, together with a list of criteria devised ad hoc for cohort studies. A qualitative summary of the results is provided.