



Title Laparoscopic-Assisted Resection of Colorectal Malignancies
Agency ASERNIP-S, Australian Safety and Efficacy Register of New Interventional Procedures - Surgical
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Aim

1. To systematically review the literature to compare the safety and efficacy of laparoscopically-assisted resection of colorectal malignancies with open colectomy.
2. To assess the laparoscopic treatment of colorectal malignancies in relation to long-term survival rates and the risk of tumor implantation in the laparoscopic port sites.

Methods

Search Strategy – Two search strategies were devised to retrieve literature from the MEDLINE, Current Contents, Embase and Cochrane Library databases up until July 1999.

Study Selection – Papers were included using a predetermined protocol, independent assessments by two reviewers, and a final consensus decision. Human studies of laparoscopic colectomies (but excluding abdominoperineal resections and transverse colectomies), and animal studies of tumor spread were included. English language papers were selected. Acceptable study designs included randomized controlled trials, controlled clinical trials, case series, or case reports.

Data Collection and Analysis – Eighty papers met the inclusion criteria. They were tabulated and critically appraised in terms of methodology and design, outcomes, and the possible influence of bias, confounding, and chance.

Results

Little high-level evidence was available, with few randomized controlled trials. Laparoscopic resection of colorectal malignancy was more expensive and time consuming. Some evidence suggested that patients may be at higher risk for short-term immune suppression, but little evidence suggested high rates of port site recurrence. The new procedure's advantages revolve around early operative recovery and reduced pain.

Safety and efficacy classification

The ASERNIP-S review group recommended a classification of 2: "The safety and/or efficacy of the procedure cannot be determined at present due to an evidence base of incomplete and/or poor quality. Further research should be conducted to establish safety and/or efficacy." (the classification list is available at www.racs.edu.au/open/asernip-s/asernipsreviewprocess.htm) Specifically, a controlled clinical trial (ideally with random allocation to intervention and control groups) should be conducted to help remedy the lack of evidence detailing circumferential marginal clearance of tumors in the rectum, ascending and descending colon, and the necessity of determining a precise incidence of cardiac and other major morbidity, along with wound and port site recurrence. Long-term survival rates also need to be clearly assessed. The proposed multicenter Australian trial of Laparoscopic-Assisted Resection of Colorectal Malignancies would be a suitable vehicle to evaluate all of these variables. Since its protocol is similar to the large American NIH study now underway, a meta-analysis of the combined data will be possible as will a definitive picture of the relative risks of laparoscopically-assisted resection and traditional open resection of colorectal malignancies.

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