TITLE: Best Practice and Guidelines for Diverticulitis and Its Complications: Clinical Evidence and Guidelines

DATE: 17 June 2011

RESEARCH QUESTION

1. What is the clinical evidence on the treatment of diverticulitis and complications related to diverticulitis including diverticular abscess and colovesical fistula?

2. What are the guidelines on the treatment of diverticulitis and complications related to diverticulitis including diverticular abscess and colovesical fistula?

KEY MESSAGE

Evidence suggests that antibiotics are an effective treatment for acute uncomplicated diverticulitis, while surgery may be required for more complicated cases.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2011, Issue 5), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and abbreviated list of major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta analyses, randomized controlled trials and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2006 and June 7, 2011. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

Six systematic reviews, seven randomized controlled trials, and ten non-randomized studies were identified regarding clinical evidence on the treatment of diverticulitis and complications related to diverticulitis. Two evidence-based guidelines were identified regarding the treatment of diverticulitis and complications related to diverticulitis. Additional references of potential interest are found in the appendix.

OVERALL SUMMARY OF FINDINGS

Uncomplicated diverticulitis

Non-surgical treatments for acute uncomplicated diverticulitis (AD) include antibiotics and probiotics. A systematic review\(^1\) found the evidence on the use of antibiotics in uncomplicated diverticulitis to be sparse and of low quality. One non-randomized study\(^2\) found that antibiotics may not always be mandatory for treating mild AD. Antibiotics, however, are recommended for treatment according to guidelines for management of diverticulitis\(^24,25\) and the length of treatment and route of administration has been studied in four randomized controlled trials (RCTs). One RCT\(^10\) found that a 4-day treatment with potent, broad-spectrum antibiotics was as effective as a standard 7-day treatment. Three RCTs\(^9,12,17\) found that orally-administered antibiotics were as effective as intravenous antibiotics at managing AD. For more severe cases of AD, inpatient treatments using intravenous antibiotics and fluids is recommended.\(^24,25\) Though less known, probiotics may be effective at managing diverticulitis when combined with an anti-inflammatory drug.\(^13\)

Conservative treatment with minimal surgery may be a better therapeutic option than colectomy to treat AD according to a non-randomized study.\(^22\) It may also be beneficial to manage diverticulitis through fibre intake and other dietary modifications.\(^4,24,25\)

Complicated diverticulitis

Complications associated with diverticulitis, such as perforations, obstructions, abscesses, fistulas, may require invasive procedures. Studies\(^2,18,19\) have shown laparoscopic peritoneal lavage to be a feasible, safe, and promising treatment for perforated diverticulitis with a low recurrence risk in the short term and a reduction in mortality and morbidity when compared to standard surgical treatments. Laparoscopic peritoneal lavage may also be used to treat acute complicated diverticulitis.\(^3\)

Although non-operative management of acute complicated diverticulitis has been shown to be effective,\(^5,14\) surgery may be required for patients, who have recurrent episodes after initial treatments.\(^24,25\) In the case of elective surgery, the decision to undergo a procedure must take into the account the age and medical condition of the patient, the frequency of attacks, and the presence of persistent symptoms.\(^24,25\) Three RCTs\(^5-8,11\) and one non-randomized study\(^15\) found laparoscopic sigmoid resection to be a safer and patient-preferred procedure over open sigmoid resection with improved quality of life in patients and shorter hospitalization times. A systematic
review\textsuperscript{6} found that primary resection with anastomosis resulted in lower mortality than Hartmann’s procedure. Related to these findings, there has been a trend for increased use of laparoscopic techniques for elective operations and primary anastomosis for urgent operations in the United States.\textsuperscript{16}

In the case where abscesses are present, their size may indicate whether surgery will be required.\textsuperscript{23} Patients with more than two episodes of uncomplicated diverticulitis are not at increased risk for poor outcomes if they develop complicated diverticulitis.\textsuperscript{20}
REFERENCES SUMMARIZED

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses


Randomized controlled trials


**Non-randomized studies**


Guidelines and recommendations

-see part 5: Medical and Surgical Management, p 8

-see Medical Treatment of Acute Diverticulitis

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APPENDIX – FURTHER INFORMATION:

Review articles


Systematic reviews (research protocol)


Ongoing clinical trials