

Laparoscopic Lavage

A Paradigm Shift for the Treatment of Perforated Diverticulitis with Purulent Peritonitis?

Akademisk avhandling

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Avhandlingen baseras på följande arbeten

- I. **Perforated diverticulitis operated at Sahlgrenska University Hospital 2003-2008**
Thornell A, Angenete E and Haglind E. *Dan Med Bull*, 2011. 58(1): p. A4173.
- II. **Treatment of acute diverticulitis laparoscopic lavage vs. resection (DILALA): study protocol for a randomised controlled trial**
Thornell A, Angenete A, Gonzales E, Heath J, Jess P, Läckberg Z, Ovesen H, Rosenberg J, Skullman S and Haglind E. *Trials*, 2011. 12: p. 186.
- III. **Laparoscopic Lavage Is Feasible and Safe for the Treatment of Perforated Diverticulitis With Purulent Peritonitis: The First Results From the Randomized Controlled Trial DILALA**
Angenete E, Thornell A, Burcharth J, Pommergaard H-C, Skullman S, Bisgaard T, Jess P, Läckberg Z, Matthiessen P, Heath J, Rosenberg J, Haglind E. *Ann Surg*. 2014 Dec 8. [Epub ahead of print]
- IV. **Laparoscopic lavage as treatment for perforated diverticulitis with purulent peritonitis (DILALA): a randomized controlled trial**
Thornell, A, Angenete E, Bisgaard T, Bock D, Burcharth J, Heath J, Pommergaard H-C, Rosenberg J, Stilling N, Skullman S, Haglind E. *Annals of Internal Medicine*, Accepted October, 2015



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ABSTRACT

Introduction

Perforated diverticulitis of the colon is a condition that sometimes requires surgical treatment. Traditionally Hartmann's procedure is the recommended treatment. Laparoscopic lavage has lately evoked interest as a definite treatment for perforated diverticulitis with purulent peritonitis.

Aim

To evaluate the surgical treatment for perforated diverticulitis and to assess laparoscopic lavage as a definite treatment for perforated diverticulitis with purulent peritonitis.

Patients and Methods

Paper I explores the morbidity and mortality of patients operated due to perforated diverticulitis at Sahlgrenska University Hospital 2003 to 2008. Papers II-IV describe the conception, structure and the results of the randomised controlled trial DILALA, which compares laparoscopic lavage to Hartmann's procedure as a treatment for perforated diverticulitis with purulent peritonitis.

Results

Paper I found that 44% of the patients were re-operated after surgical treatment for perforated diverticulitis. The mortality rate during first admission was 6%. The stoma, a result from Hartmann's procedure, became permanent in 40% of the patients. The DILALA-trial showed that for laparoscopic lavage 28% were re-operated compared to 63% for the Hartmann's procedure, a relative risk reduction of 59% for re-operation (RR 0.41, 95% CI 0.23-0.72) ($p=0.004$) There was also significantly shorter operating time and shorter length of hospital stay. No differences were found in mortality, morbidity or quality of life.

Conclusion

The scientific evidence for laparoscopic lavage is still limited but our results indicate that laparoscopic lavage is superior to Hartmann's procedure when treating perforated diverticulitis with purulent peritonitis.

Keywords: diverticulitis, acute, Hartmann, laparoscopy, lavage

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