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

Akademisk avhandling
Som för avläggande av medicine doktorsexamen vid Sahlgrenska Akademin, Göteborgs Universitet, kommer offentligen försvaras i Aulan, CK, Sahlgrenska Universitetssjukhuset/Östra, fredagen den 11 december 2015 kl 1300.

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Avhandlingen baseras på följande arbeten

I. Perforated diverticulitis operated at Sahlgrenska University Hospital 2003-2008

II. Treatment of acute diverticulitis laparoscopic lavage vs. resection (DILALA): study protocol for a randomised controlled trial

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

IV. Laparoscopic lavage as treatment for perforated diverticulitis with purulent peritonitis (DILALA): a randomized controlled trial

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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
