

A Totally Laparoscopic Colectomy is Feasible for Acute Complicated Appendicitis with Necrotic Appendiceal Base in the Emergency Setting

Giulio M. Mari¹, Jacopo Crippa², Francesca Roufael³, Richard Sassun³, Emanuele Di Fratta¹, Angelo Miranda¹, Carmelo Magistro², Angelo Guttadauro⁴, Barbara Vignati³, Martino Gerosa¹, Mauro Santonocito¹, Dario Maggioni¹ on behalf of the AIMS Academy Clinical Research Network

¹Department of Colorectal Surgery, ASST Brianza, Viale Mazzini 1, 20832 Desio (MB), 20832, Italy

²Department of Surgery, ASST Melegnano e Martesana, Via Pandina 1, 20070 Vizzolo Predabissi, Milan, Italy

³General Surgery Residency Program, University of Milan, Via Festa del Perdono 7, 20100 Milan, Italy

⁴Department of Medicine and Surgery, School of Medicine and Surgery, University of Milano Bicocca, Piazza dell'Ateneo Nuovo, 1, 20126, Milan, Italy

Abstract

Introduction: Acute appendicitis remains one of the most common surgical emergencies worldwide. Complicated acute appendicitis may present as perforated or gangrenous appendicitis with a compromised appendiceal base. This is a challenging scenario for surgeons that may require, in some cases, an ileocolic resection. This study aims to demonstrate the advantages and efficacy of a minimally invasive approach to complicated appendicitis requiring ileocolic resection.

Materials and Methods: We reviewed patients who underwent extended resection for complicated acute appendicitis at our hospital from January 2022 to May 2024. Baseline, preoperative, intra-operative and postoperative features were analyzed.

Results: During the study period, 15 patients with acute appendicitis required laparoscopic extended resection. Nine (56.2 %) underwent ileocecal resection, and 6 (43.8%) underwent right colectomy. All patients had an intracorporeal side to side, isoperistaltic 60 mm mechanical anastomosis. Mean length of stay was 7 ± 1.3 days with no CD III and IV complications. No postoperative abdominal abscesses or anastomotic leaks occurred.

Conclusions: Totally laparoscopic approach is a safe procedure for patients with complicated appendicitis requiring ileocolic resection.

Key words: colorectal surgery, appendectomy, minimally invasive surgery, ileocecal resection, emergency colectomy