

PI1: TRANSUMBILICAL LAPAROSCOPIC-ASSISTED APPENDECTOMY FOR COMPLICATED APPENDICITIS IN CHILDREN: OUR SEVEN-YEAR EXPERIENCE

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Background The purpose of the present study is to review our seven-year experience in a tertiary referral hospital in treating acute complicated appendicitis with one-port transumbilical laparoscopic-assisted appendectomy (TULAA) in children

Materials and methods Our study is a retrospective review of the pediatric patients who underwent TULAA at our Institute from 2010 to 2017. We focus our attention on complicated appendicitis, defined by presence of abscess or peritonitis. We evaluate the impact of preoperative abdominal ultrasound, the rate of conversion to open surgery, the management of post-surgical intra-abdominal abscesses, the use of antibiotics and the role of abdominal drainage after surgery.

Results We performed 64 (40 males) TULAA from January 2010 to March 2017 for acute complicated appendicitis with signs of peritonitis or abscess. 41 patients (64%) underwent abdominal ultrasound before surgical procedure. The mean age at the time of surgery was 8.68 years, while the mean length of stay was 8.03 days. The operation was completed using one port in 32 patients (50.0%) and two and three ports in 18 patients (28.1%). 14 patients (21.9%) needed conversion to open surgery: rate of conversion was 41.6% in 2010 and 2011, 7% in 2016 and 2017. An intra-abdominal drainage was used in only 2 patients: one was inserted after a second-look laparoscopy 6 days after the appendectomy, the other was inserted after 9 days using ultrasound-guidance to drain a recurrent abscess.

Conclusions : Based on our experience TULAA is a safe, simple and cost-effective approach for complicated appendicitis that provides an excellent exploration of the abdomen, a minimal post-surgical pain, a short hospital stay and a good cosmetic result. The use of intra-abdominal drainage is limited to exceptional cases. Furthermore, our review demonstrates how chances of conversion to open surgery for complicated appendicitis decrease as the surgical team gains experience.

Key words appendicitis, peritonitis, transumbilical laparoscopic-assisted appendectomy