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NEW PRIMALY MANAGEMENT FOR APPENDICEAL ABSCESS IN CHILDREN: LAPAROSCOPIC DRAINAGE

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Purpose: The management of appendiceal abscess (AA) in children remains controversial. We evaluated primary laparoscopic treatment for efficacy.

Methods: Eleven consecutive cases of AA (mean age: 8.1±2.8) between 2000 and 2004 were the subjects for this study. All had laparoscopic drainage (LD) at presentation (two Penrose drains were used; one within the abscess wall and the other within the pouch of Douglas). If the appendix was easily seen after LD, laparoscopic appendectomy (LA) was also performed.

Results: Eight patients underwent LD alone (LD-group) and 3 underwent LD/LA (LA-group). In the LD-group, mean operating time was 87.9±23.2 minutes, oral feeding commenced after a mean of 2.3±0.8 days, patients became afebrile within 4.3±3.1 days, intravenous antibiotics were ceased after 5.3±3.1 days, C-reactive protein normalized within 13.6±4.2 days, drains were removed within 4.0±1.3 days, and hospital stay ranged from 7-15 days. There were no intra- or post-operative complications related to the LD procedure. In 6 of the 8 LD patients, interval LA was performed at 6.8±5.8 months after LD, but was not performed in the remaining 2 due to parental refusal. In the LA-group, operating time ranged from 125-150 minutes, and oral feeding commenced 4, 5, and 5 days after LA, respectively. One patient developed an adhesive bowel obstruction after LA, which resolved with conservative therapy; in the remaining 2, there were no complications. All 11 patients are well after a mean follow-up period of 3.1±1.1 years. Histological examination of the excised appendices showed mild to severe inflammation.

Conclusion: We recommend that laparoscopy be adopted for the primary management of AA as it would appear to be simple, safe, and effective.

LAPAROSCOPIC TREATMENT OF A SMALL BOWEL VOLVULUS SECONDARY TO AN OMPHALO-MESENTERIC REMNANT

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Omphalo-mesenteric remnants such as Meckel diverticulum, fistulas and fibrous or vascular cords are common causes of small bowel obstruction in children. We present a case of a child with a small bowel volvulus secondary to a vascular omphalo-mesenteric remnant that was diagnosed and operated with a laparoscopic approach. A 9 year-old boy known for chronic episodes of abdominal pain with spontaneous resolution and a glandular hypospadias arrived in our institution with acute abdominal pain in the right hemiabdomen associated to biliar vomiting and abdominal distension. Clinical exam showed a painful distended abdomen with a palpable mass in the right hemiabdomen. The abdominal scanner showed data compatible with small bowel obstruction and a vascular structure coming from the umbilicus to the area of the intestinal obstruction. The child underwent laparoscopic exploration and a small bowel volvulus with intestinal ischemia was diagnosed. A vascular remnant coming from the umbilicus to the mesentery was at the base of the volvulus. After bowel detorsion and resection of the vascular cord the color and peristalsis of the bowel recovered and the intestinal resection was not necessary. The child was discharged on postoperative day 3. Exploratory laparoscopy is a safe and feasible option to evaluate children with intestinal obstruction and depending on the findings and the surgeon laparoscopic skills, a full surgical correction without open conversion could be achieved.

GIANT POLYPOID GASTRIC HETEROTOPIA OF THE JEJUNUM PRESENTING WITH INTERMITTENT INTUSSUSCEPTION

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Gastric heterotopia presenting as a tumorous mass in the jejunum is uncommon. A 17-year-old otherwise healthy female presented with a 6-month history of gastro-esophageal reflux like symptoms, epigastric pain, and occasional bilious vomiting. Medical therapy aimed at the reflux symptoms was unsuccessful. CT scan of the abdomen revealed small bowel intussusception. Laparoscopy was performed using a 3-port technique: a 12 mm supraumbilical Hasson port, a 5 mm port in the right upper quadrant, and a 5mm port in left lateral abdomen at the level of the umbilicus. The entire small bowel was inspected and ran from the ileocecal valve to the ligament of Treitz. A dilated and thickened segment of proximal jejunum, with a clear transition point about 60 cm from the ligament of Treitz was identified. The small bowel was delivered via a Tan-Bianchi circumumbilical incision. Proximal to the transition point there was a palpable intraluminal mass as the lead point. An enterotomy was made to expose a single bilobed polyp on the antimesenteric border. The polyp was excised using an endo GIA stapler, and the enterotomy was closed. Histologic examination rendered a diagnosis of giant polypoid gastric heterotopia of the jejunum without atypia. At 2-month follow-up, the patient remains asymptomatic.

LAPAROSCOPIC CONTINENT APPENDICOCECOSTOMY INTO A CONCEALED STOMA: OPTIMIZING COSMESIS AND CONTINENCE

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Introduction: Previously reported techniques to construct a laparoscopic appendicocecostomy (LA) for antegrade continent enemas (ACE) do not create a continence mechanism with a submucosal tunnel which carries the risk of leakeage of stool. We report a technique to construct a LA for ACE, which creates a submucosal tunnel, mimicking the open technique (Modified Malone).

Methods and Procedures: Review of 2 patients who underwent LA as an isolated procedure. Technique: A "V" incision was done in the umbilicus before gaining access to the abdominal cavity to create a concealed stoma afterwards. The procedure was done though three ports. The appendix was isolated and the cecum mobilized. A 3 cm seromuscular incision was done from the base of the appendix along the taenia and the proximal appendix was placed in a submucosal tunnel created by reapproximating the seromuscular layer of the cecum with interrupted sutures. Under laparoscopic vision the appendix was brought out through the umbilical site and anastomosed to the V flap previously prepared in the umbilical skin. A catheter was left in place for four weeks.

Results: Patients were 8.5 and 8.6 years old and had neurogenic bowel dysfunction secondary to lipomeningocele and tethered spinal cord in 1 child and high imperforated anus and tethered spinal cord in the other. Mean operative time was 3.5 hours. Blood loss was negligible. There were no complications. Patients were discharge home at 3 and 4 days postoperatively. At 3 and 8 months after surgery, both patients are continent of stool and very satisfied with the cosmetic results.

Conclusions: The open appendicocecostomy for ACE with submucosal tunnel located at the umbilicus provides a concealed stoma with no leaking problems. We were able to reproduce this technique with the advantage offered by laparoscopy: minimal invasiveness and improved cosmesis.