

Reparo Laparoscópico de Perfuração do Cólon Durante Colonoscopia

Laparoscopic Repair of Perforation of The Colon During Colonoscopy

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RESUMO INTRODUÇÃO: As lesões iatrogênicas do cólon são complicações sérias observadas em associação com colonoscopia diagnóstica e terapêutica. Estas nem sempre são evitáveis mesmo quando realizadas por profissionais experientes. Com a finalidade de reduzir a possibilidade de procedimento mais invasivo e evitar o risco de insucesso, a técnica laparoscópica tem sido utilizada nestas perfurações iatrogênicas. Os autores apresentam um caso de perfuração colônica durante colonoscopia e mucosectomia tratada com sucesso através do reparo laparoscópico. RELATO DO CASO: Paciente de 46 anos, do sexo feminino, foi submetida a colonoscopia e mucosectomia. Foi observada uma lesão no cólon transverso que foi produzida pela mucosectomia. A paciente foi então submetida à laparoscopia e a laceração foi reparada em dois planos de sutura. A recuperação pós-operatória foi rápida e sem alterações. DISCUSSÃO: Em pacientes com perfuração do cólon relacionada a colonoscopia, consideramos a abordagem laparoscópica uma opção possível e segura quando realizada por profissionais experientes com o método. O tratamento laparoscópico é capaz de reduzir o caráter invasivo de uma cirurgia de grande porte. Esta abordagem representa uma excelente forma manusear este tipo de condição abdominal de emergência.

Palavras-chave: PERFURAÇÃO DO CÓLON; LAPAROSCOPIA; COLONOSCOPIA.

ABSTRACT BACKGROUND: Iatrogenic perforations of the colon are serious complications that have been observed in association with both diagnostic and therapeutic colonoscopies, and are not always avoidable, even in the hands of an experienced investigator. To reduce the invasiveness of major surgery and avoid the risk of failure, laparoscopic techniques can be done to deal with iatrogenic colonic perforations. The authors report a case of colonic perforation during diagnostic colonoscopy and mucosectomy that was treated successfully by laparoscopic repair. CASE REPORT: A 46-year-old woman underwent diagnostic colonoscopic and mucosectomy. The colonoscopy found a tear in the transverse colon that was produced by mucosectomy. The patient underwent laparoscopy and the laceration was repaired laparoscopically in two layers. The postoperative recovery was rapid and uneventful. DISCUSSION: In patients with perforation of the colon related to colonoscopy, we consider the laparoscopic approach a feasible and safe option in experienced hands. Laparoscopic treatment seems to reduce the invasiveness and morbidity of major surgery. This approach represents an excellent means of managing this type of emergency abdominal situation.

Key words: COLON PERFORATION; LAPAROSCOPY; COLONOSCOPY

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A 46-year-old woman underwent diagnostic colonoscopy and mucosectomy in September 2005 for evaluation of a change in bowel habits and polypoid lesion. The examination was performed without difficulty and the mucosectomy

was done. It was found during colonoscopy a tear in the transverse colon that was produced by mucosectomy (Figure-1). Postprocedure she complained of diffuse abdominal pain with radiation to her shoulders. Her abdomen was distended but soft

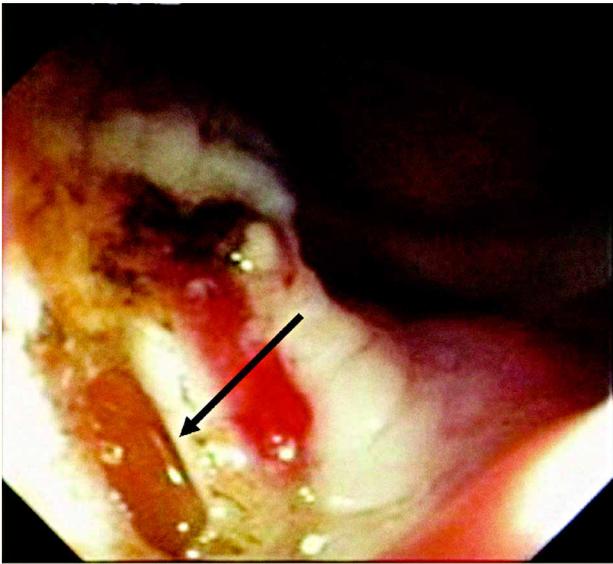


Figure 1 - Tear in the transverse colon due to colonoscopic mucosectomy.

with mild diffuse tenderness and no guarding or rebound. Because of the diffuse tenderness and radiation of her pain, operative intervention was recommended. Laparoscopy was discussed and the patient consented to repair with possible laparotomy. Our technique employed an open umbilical approach with one 10-mm, one 10-mm trocar in the left iliac fossa and two other 5-mm trocars introduced in the right iliac fossa and right flank under general anesthesia. A large perforation, measuring approximately 3 cm, was found in the antimesenteric side of the distal transverse colon. Fecal matter and peritonitis were not identified in the peritoneal cavity. The laceration was repaired laparoscopically in two layers: inner layer with 2-0 polybutylate-coated polyester (Ethibond, Ethicon, Inc.) running suture and outer layer with a single 2-0 Ethibond suture. The abdomen was irrigated with saline and no drain was used. The nasogastric tube was removed on postoperative day 2 (after return of bowel function) and clear fluid diet was started. Antibiotic had been started preoperatively and was switched to p.o. on day of discharge, postoperative day 3. Her temperature and WBCs remained normal. Her laparoscopic wounds (2-10mm and 2-5mm) healed well without infection. The postoperative course was unremarkable and within ten days she was back to office with no restrictions.

DISCUSSION

Colonoscopy is a remarkably safe procedure with low incidence of major complications such as bleeding and perforation. The incidence of perforations has been reported as between 0.045 and 3%. Diagnostic colonoscopy carries a lower risk of perforation, ranging from 0.045 to 0.8%. Therapeutic colonoscopy carries a risk of perforation ranging from 0.073 to 3%^{2,3,5,9}. Although some colonic perforations are now selectively observed, those that require exploration and operative repair cause significant morbidity. Perforations during therapeutic colonoscopy usually occurs during hot biopsy or polypectomy. These perforations are caused by thermal injury at the operative site and result in a smaller injury with less contamination than tears from diagnostic colonoscopy^{1,4,5}.

Depending on the operative findings and the skill and experience of the laparoscopic surgeon, repair may be attempted. Laparoscopic treatment seems to reduce the invasiveness and morbidity of major surgery. At the same time, it is more definitive injury management than conservative treatment. If laparoscopic repair is possible the benefits associated with minimally invasive procedures may be obtained. It allowed us to avoid an unnecessary laparotomy and other time-consuming and expensive diagnostic investigations.

Laparoscopy should allow early evaluation of operative patients and primary repair of those with minimal surgical contamination and no residual pathology. Early intervention laparoscopically may also decrease the severity of this iatrogenic complication and the need for colostomy and reoperation for its takedown^{2,4,7,8}. The benefits of minimally invasive surgery, such as shortened hospitalization, more favourable postoperative status and rapid return to full activities, including work, were realized in our patient.

FINAL COMMENTS

In patients with an emergency abdomen due to a postcolonoscopy perforation, we consider the laparoscopic approach a feasible and safe option to

treat colonic perforations in experienced hands. This approach represents an excellent means of managing this type of emergency abdominal situation^{3,6,8}.

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