CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 6 (2015) 88–91

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Internal-mesocolic hernia after laparoscopic left colectomy report of case with late manifestation

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ARTICLE INFO

Article history:
Received 26 June 2014
Received in revised form
23 November 2014
Accepted 23 November 2014
Available online 28 November 2014

Keywords:
Internal hernia
Mesocolic hernia
Laparoscopy
Laparoscopic colectomy
Left colectomy

ABSTRACT

INTRODUCTION: In contrast to right colectomy, closure of the mesocolic gap after laparoscopic left colectomy is not practiced, and reports of small gut herniation through this gap are scarce.
PRESENTATION OF CASE: A 73 year old male was admitted as an emergency with symptoms and clinical signs, suggesting obstruction of the small bowel. Abdominal imaging, including computed tomography confirmed the diagnosis. The patient had undergone laparoscopic left colectomy for cancer, three years ago. At laparotomy small bowel loops were found to herniate through the mesocolic defect at the level of the colonic anastomosis. The small bowel loops were reduced and their viability was ascertained. Because of an iatrogenic perforation of the colon at the anastomosis during small bowel loops mobilization, the colon was temporarily exteriorized in the form of a double barrel colostomy. The postoperative course was uneventful.
DISCUSSION: Very few cases have been reported in the liteature indicating the need of sutuing the mesenterium. Despite the limited numbe of the reported cases, there is clearly a risk of intenal hernia after laparoscopic left colectomy.
CONCLUSION: Although rare internal hernia after laparoscopic left colectomy may occur, and this brings forward the question of mesocolic gap closure.

1. Introduction

Laparoscopic colorectal surgery for the treatment of both benign and malignant pathology of the colon is gaining increased acceptance. The laparoscopic approach offers a faster recovery, with less morbidity and use of narcotic analgesics as compared to the open approach. In addition, long-term oncological results after laparoscopy for colorectal cancer are at least equivalent to conventional surgery.[1–7]

Immediate postoperative local complications, such as bleeding, anastomotic leak, and wound infection, have been reported after either approach in similar rates.[5–7] However, herniation of small bowel loops through the mesocolic gap after laparoscopic colectomy is rarely reported.[8–12] We herein present a case with late manifestation of small bowel obstruction (SBO) as a result of jejunal loops herniation through the mesenteric gap of a left colectomy.

2. Case report

A 73 year old male was admitted as an emergency in our department with symptoms and clinical signs suggesting SBO. The patient had undergone laparoscopic left colectomy for cancer of the descending colon, three years before. Abdominal imaging, including computed tomography with i.v. and per-os contrast, confirmed the diagnosis of obstruction of the mid-jejunum, without revealing any possible cause. After a 24-h period of clinical observation and conservative treatment, the patient underwent an exploratory laparatomy. The findings consisted of strangulated jejunal loops herniated through the mesocolic defect at the level of the colocolonic anastomosis. Viability of the small bowel was ascertained and an intestinal resection was not considered necessary. An iatrogenic perforation of the colon at the level of the anastomosis during mobilization of the small bowel loops necessitated the exteriorization of the anastomosis in the form of a double barrel colostomy. The postoperative course was uneventful, and the patient was discharged on the 6th post-operative day Fig. 1.

3. Discussion

Internal herniation of jejunal loops through the mesenteric defects has been described as a cause of SBO in rates around

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http://dx.doi.org/10.1016/j.ijscr.2014.11.067

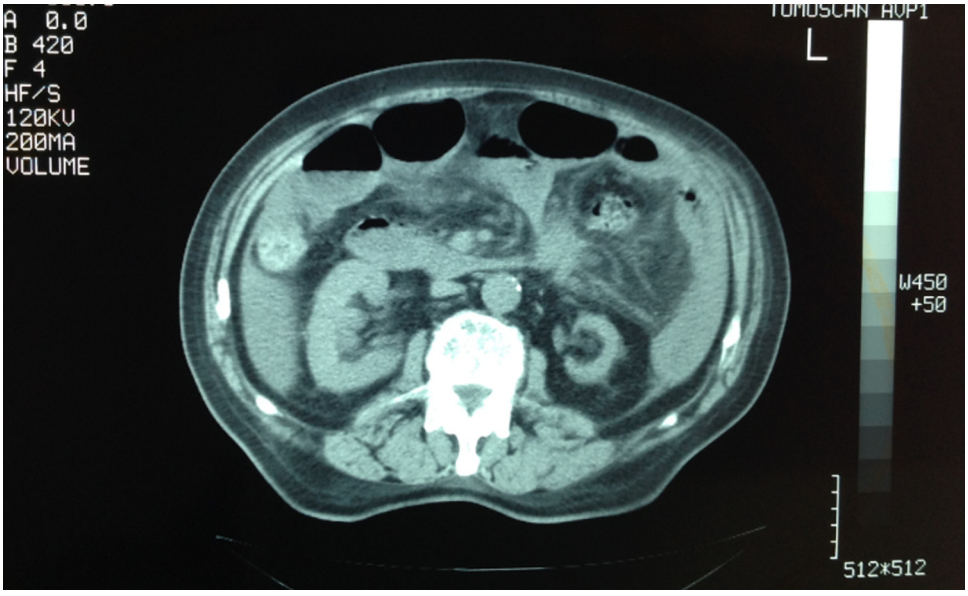

Fig. 1. Abdominal CT. Free fluid in the abdominal cavity, turbidity of the mesenteric fat levels, thickening of the small bowel wall, traction of mesenteric helix to suspicious area, and stretching of the bowel central to the pathologic area.

1% after several laparoscopic procedures, such as gastric by-pass, Nissen fundoplication, nephrectomy, or even cholecystectomy.[4,5,8] To avoid this complication, meticulous closure of all mesenteric defects with a continuous non-absorbable suture is recommended. SBO after either laparoscopic or open colectomy has been reported in rates of 2–3, 6%, and is most commonly the result of intraperitoneal adhesions formation.[13,14] At present, something like eleven (11) cases of small bowel obstruction as a result of herniation of intestinal loops through the mesenteric defect after laparoscopic colectomy have been reported.[8,15,16] In an effort to assess the incidence of internal herniation after laparoscopic left colectomy in 436 patients over a 5-year period, Trabaldo et al.[12] report five (5) cases of SBO as a result of jejunal loop herniation through the left mesocolic gap, one of which succumbed. However, there is no evidence in the literature on the incidence of asymptomatic internal herniae Fig. 2.

All the aforementioned reported cases were clinically manifested within the first 8 h to 7 days, immediately postoperatively. To our knowledge, the case reported herein is the first in the literature, representing a small bowel herniation through a mesocolic gap after laparoscopic left colectomy, manifested three years postoperatively. Therefore, although extremely rare, one should always suspect the possibility of small bowel loops internal herniation when confronted with a patient presenting with

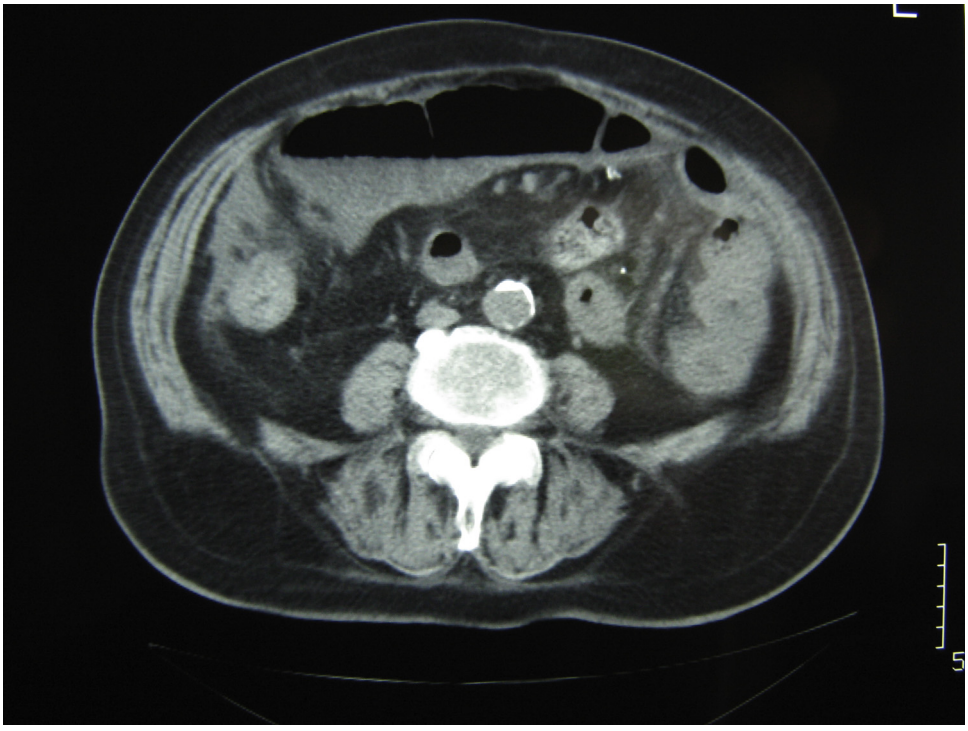

Fig. 2. Abdominal CT.