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Early Adhesive Postoperative Ileum Obstruction after Appendectomy Due to Acute Appendicitis in an Elderly Patient

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Abstract

Appendicitisis the most common cause of acute abdomen. It appears less frequently in advancing age. The most usual post-surgery complications are peritonitis and wound infection, whereas early small bowel obstruction due to adhesions occurs rarely. In our case, a 69-year-old white male patient suffering from acute appendicitis underwent open appendectomy. On the third day after surgery and while recovering satisfactorily, he was diagnosed with early adhesive postoperative ileum obstruction. The patient did not respond to conservative treatment, therefore open adhesiolysis was performed.

Keywords

Appendicitis; Appendectomy; Early Small Bowel Obstruction

Introduction

Acute appendicitis is the most common abdominal surgical emergency. Most commonly occurs between the second and third decades of life and is rare in infancy and in the elderly. The cause of appendiceal inflammation is usually obstruction by fecalith and less commonly viral infections, ball of worms (*Enterobiusvermicularis*), foreign bodies, or tumor. Due to the continuing mucus secretion despite the obstruction, intraluminal pressure increases and draining veins collapse. Consequently, ischemic injury favours bacterial proliferation and inflammation. If remains untreated, acute appendicitis leads to the development of gangrene and perforation within 36 hours [1].

Early postoperative small bowel obstruction is defined as the presence of abdominal pain, vomiting, and radiographic findings consistent with intestinal obstruction within 30 days post-surgery. Early postoperative small bowel obstruction after appendectomy due to acute appendicitis is described to be a rare complication [2].

Case Presentation

A 69-year-old male patient, with no former history of abdominal operations, attended the emergency department complaining of nausea, vomiting and abdominal steady ache located on the right lower quadrant.Clinical examination revealed tenderness at McBurney point, rebound tenderness and reflex muscle contraction. The laboratory test revealed moderate leucocytosis 15900 cells/mm^3 (normal value 5000 to 10000), with neutrophilia and a concomitant left shift.

Diagnosis was established by abdominal ultrasound and CT scanning. Prior to surgery the patient was given broad-spectrum antibiotics with gram-negative and anaerobic coverage (ciprofloxacin and mertonidazole) in order to reduce the incidence of postoperative infections. The patient underwent open appendectomy, a gangrenous appendix was removed and an amount of fluid of the peritoneal space was sent for microbiological examination and culture.

Postoperatively the patient showed immediate clinical improvement and leukocyte count fell within normal range. However, on the third day post-surgery there were clinical symptoms of distension and pain. The performed CT scan [Figure 1] revealed dilatation of ileum due to adhesions to the right iliac fossa. At first the patient was treated conservatively with the administration of neostigmine, gastrografin, metoclopramide and ondansetron, though without success. Therefore, open adhesiolysis was performed.

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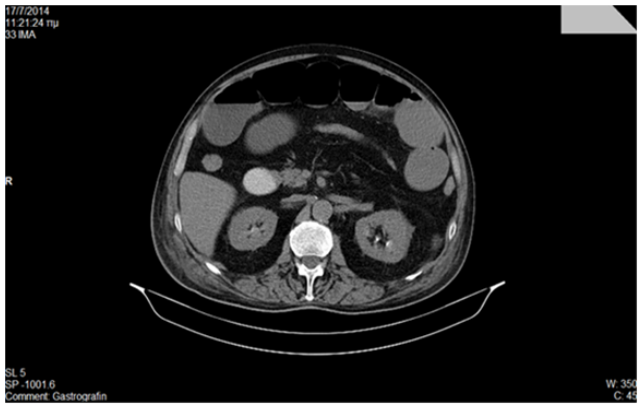

Figure 1: Computerized tomography of the abdomen demonstrated ileum obstruction due to adhesions

Discussion

Early postoperative small bowel obstruction is described as a rare abdominal surgery complication. Its incidence is referred approximately 1- 1.5%, although the occurrence is higher in patients with consecutive abdominal operations [2-6]. The most common underlying causes are ulcerative colitis, malignancies, Crohn's disease. Appendectomy is described as a rare cause of early postoperative small bowel obstruction especially in patients with no former history of abdominal operations [6]. On the other hand, the most commonly referred complications after appendectomy are peritonitis and wound infection [6]. Our patient had no former history of surgery in the abdomen. Different studies reveal the overall incidence of small-bowel obstruction after appendectomy to be within a range of 24 weeks to 14 years [2,3]. In our case the patient developed small bowel obstruction on the third day post-surgery.

Elderly patients seem to be at greater risk, although, due to the rarity of appendicitis in advanced age there seem to be little data to support this conclusion. Increasing data support the early operative intervention in order to restore small bowel function [2,3].

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