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Case report

Partial Cecal Necrosis Treated by Laparoscopic Partial Cecal Resection

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A B S T R A C T

Acute colonic ischemia is the common cause of colitis in elderly population. However, isolated ischemic necrosis of cecum is rare entity, often associated with variety of conditions. Here we present a case of a 73-year old woman with a past history of hypertension presented with clinical symptoms of right lower quadrant abdominal pain and tenderness localized to the right lower quadrant, guarding and rebound tenderness. With diagnosis of acute appendicitis, the patient underwent laparoscopy where the cecal partial necrosis was discovered. Necrotic area of cecum was excised using two endoscopic cutters and laparoscopic appendectomy was performed. Pathologist report showed thrombosis of vessels and necrosis of entire cecal wall. The patient completely recovered without any surgical complications. This is the first case of partial cecum necrosis laparoscopicaly managed and with a partial cecal resection only.

Key words: *cecal necrosis, laparoscopy, partial cecal resection*

Introduction

Acute colonic ischaemia is a common cause of colitis in the elderly population however isolated ischemic necrosis of the cecum is rare and is often associated with conditions such as chronic heart disease, systemic sepsis, opportunistic fungal infections, hypovolemic shock and rheumatic fever[1–3].

Several cases of isolated cecal necrosis have been described in surgical literature[1,4,5]. The patients in these earlier reports underwent laparotomy to establish diagnosis of the acute appendicitis with eventual cecectomy, ileocolic resection or right colectomy were performed[1,4,5].

Older patients are liable to have varies pathologies such as tumors of the cecum, tubo – ovarian abscess, twisted or ruptured ovarian cyst etc. So in such patients differential diagnosis is very essential. Acute colonic ischaemia is a common cause of colitis not only in the elders but can also occur in the young population. This depends mainly on the factors that can cause ischaemia of the colon[6]. The clinical approach should not be limited to physical and laboratory examinations, but must be extended to pan colonoscopy, ultra sound of lower abdominal region. In this case operation was based on physical and laboratory examinations because the patient was operated in emergency, when the diagnosis of acute appendicitis was established and the emergency does not allow any additional diagnostic elaboration.

Case Report

Here we describe the case of a 73-year old woman with a past history of hypertension who presented following two days of right lower quadrant abdominal pain associated with nausea and diarrhea. Physical examination revealed tenderness localized to the right lower quadrant with both guarding and rebound tenderness. Blood tests revealed a white cell count of 17,500/mm^3.

Diagnosis of the acute appendicitis was made and the patient underwent laparoscopy at which time partial cecal necrosis was discovered. The necrotic area was localized to the antimesenteric side of cecum, measured approximately 4 cm in diameter and was adherent to the anterior abdominal wall (Figure 1). After thorough laparoscopic examination no other pathology was identified within the abdomen. The appendix was situated 3 cm from the necrotic area and was without any sign of inflammation. The mesoappendix was divided using har-

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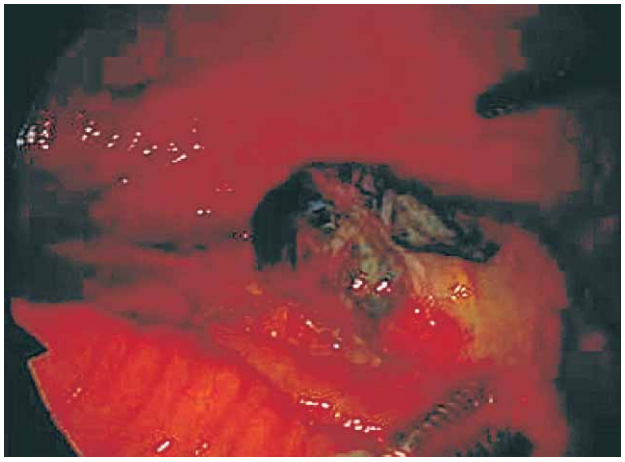

Fig. 1. Partial cecal necrosis.

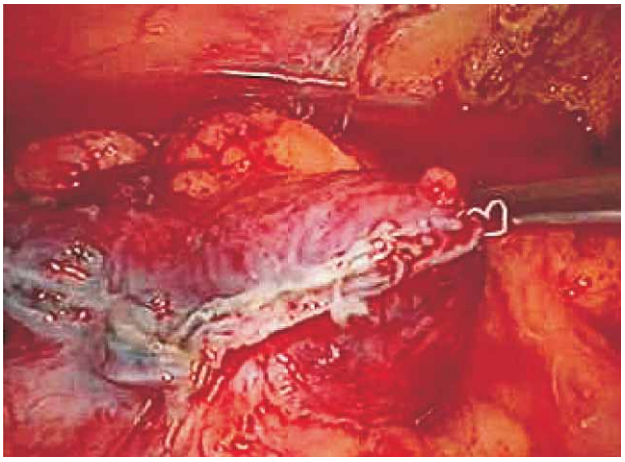

Fig. 3. Operation field after the resection.

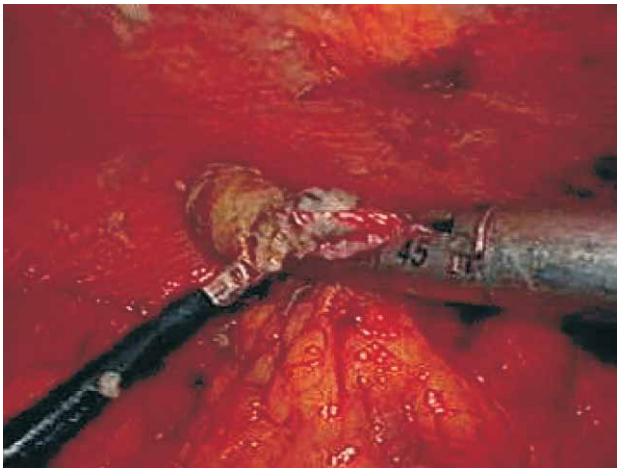

Fig. 2. Resection using endoscopic cutter.

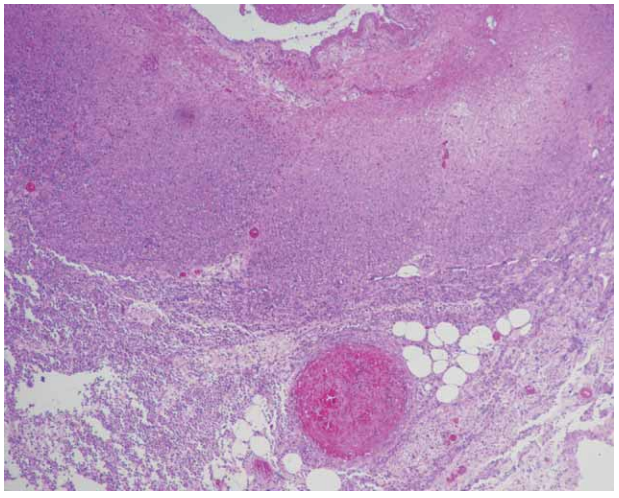

Fig. 4. Pathological finding – necrosis of the cecal wall and thrombosis of the vessels.

monic scalpel and an endo-loop was placed around the base of the appendix. The necrotic area of the cecum was excised using two endoscopic cutters (Figure 2) and several reabsorbable interrupted sutures were placed to cover the resection line (Figure 3). The use of two cutters is quite sufficient, but the additional sutures were placed because the resection line appeared low irrigated. Thorough peritoneal lavage was performed and an abdominal drain placed in the ileocecal region. The subsequent pathological report showed thrombosis of the vessels supplying the excised tissue with necrosis of the entire cecal wall (Figure 4).

The patient recovered well without any surgical complications. This experience showed that partial cecal necrosis can be managed laparoscopicaly with partial cecal resection only.

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PARCIJALNA NEKROZA CEKUMA TRETIRANA LAPAROSKOPSKOM PARCIJALNOM RESEKCIJOM CEKUMA

S A Ž E T A K

Akutna ishemija kolona je uobičajeni uzrok kolitisa kod starije populacije. Izolirana ishemijska nekroza cekuma rijedak je slučaj, uglavnom udružen s različitim drugim stanjima. Ovdje predstavljamo slučaj 73. godišnje žene s hipertenzijom koja se prezentirala kliničkim simptomima boli u desnom donjem dijelu trbuha. S dijagnozom akutnog apendicitisa pacijentica je podvrgnuta laparoskopskom zahvatu, kada je ustanovljena parcijalna nekroza cekuma. Nekrotično područje cekuma ekscidirano je pomoću dva endoskopska staplera, a učinjena je i laparoskopska apendektomija. Nalaz patologa pokazao je trombozu krvnih žila i nekrozu cekuma. Bolesnica se potpuno oporavila bez ikakvih kirurških komplikacija. Ovo je prvi slučaj parcijalne nekroze cekuma dijagnosticiran i tretiran laparoskopski samo parcijalnom resekcijom cekuma.