Ischemic Necrosis of the Cecum: A Single Center Experience

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Background/Aims: Isolated cecal necrosis is a rare cause of the surgical abdomen. Its manifestation is similar to that of acute appendicitis. Thirteen cases, who were pre-diagnosed with acute abdomen and were finally diagnosed with isolated cecal necrosis after operation have been evaluated alongside with literature.

Methods: The records of 13 patients, who had isolated cecal necroses between 1995 and 2011 at Necmettin Erbakan University Meram Medical School’s General Surgery Clinic (Turkey), were retrospectively evaluated.

Results: Eight of the patients were male, whereas 5 were female. Their mean age was 68.0±11.7 (range 51-84) years. All the patients had at least one accompanying disease the most frequent of which were heart failure and chronic renal failure. Ten patients had right hemicolecction and ileotransversostomy, two had right hemicolecction and ileostomy, and one had wedge resection to the cecum by the help of linear stapler. Mortality was seen in 5 patients (38%) in the early postoperative period.

Conclusions: Isolated cecal necrosis should be considered in elderly patients with chronic diseases presenting with sudden right lower quadrant pains in the differential diagnosis. Isolated cecal necrosis may have a bad prognosis since it is seen in elderly patients with accompanying problems. Therefore, early diagnosis and immediate surgical management if necessary is important to reduce the risk of morbidity and mortality. (Korean J Gastroenterol 2013;61:265-269)

Key Words: Appendicitis; Cecum; Necrosis; Colectomy

INTRODUCTION

Acute colonic ischemia is frequently seen in the elderly population. It mostly develops in relation to atherosclerosis and low blood flow. Isolated cecal necrosis is a rare form of acute colonic ischemia and a rare cause of surgical abdomen. It generally presents with right lower quadrant pain and a manifestation similar to that of acute appendicitis clinically. These patients might have one or more accompanying diseases. Among these heart failure and chronic renal failure top the list. It generally has a bad prognosis since it is seen in elderly patients with accompanying diseases. Thirteen cases who were pre-diagnosed with acute abdomen and finally diagnosed with isolated cecal necrosis after operation have been evaluated alongside with literatures.

SUBJECTS AND METHODS

The records of 13 patients, who were seen to have isolated cecal necroses between 1995 and 2011 at Necmettin Erbakan University Meram Medical School’s General Surgery Clinic (Konya, Turkey), were retrospectively evaluated. The cases where the appendix was normal during the procedure, where the ischemia was only limited to the cecum (Figs. 1, 2), where no pathologies were detected in the other intraabdominal organs, and where necroses were histopathologically proven in the cecum were diagnosed as isolated cecal necrosis.

The patients were evaluated regarding their ages, complaints, the period when their complaints had begun, physical examination, the number of leucocytes, radiological findings, surgical incisions and surgical procedures, duration of hospitalization, morbidity and mortality. Long-term results...
were obtained from file records and follow-up examination of the patients. All the patients were operated with acute abdomen diagnosis. All the patients were considered to have acute appendicitis for the pre-diagnosis before the surgical interventions.

Statistical analysis was performed by using SPSS software ver. 15.0 for Windows (SPSS Inc., Chicago, IL, USA). To test significance, Student’s t-test was used for continuous variables and chi-squared or Fischer’s exact test was used for categorical variables. A p-value of <0.05 was considered significant.

RESULTS

1. Clinical and diagnostic features

Eight of the patients were male, whereas 5 of them were female. Their mean age was 68 (51-84) years. The first complaint of all the patients was abdominal pain. The duration of complaints before visiting the hospital was an average of 3 (1-7) days. The main symptoms were abdominal pain in 13 patients (100%), abdominal distention in 8 (61%) and vomiting in 8 (61%). The main signs were abdominal tenderness in 13 patients (100%), muscular rigidity in 13 (100%), fever in 7 (53%) and hypokinetic/akinetic bowel in 6 (46%). The symptoms and signs are provided in Table 1.

All the patients had at least two accompanying disease the most frequent of which were heart failure and chronic renal failure (Table 2).

The leukocyte number of 11 patients was found to be over >10,000. Radiological evaluation revealed that 3 patients had normal ultrasonography results, 5 had fluid in the right lower quadrant and contamination in the fatty planes as revealed by the ultrasonography. Two patients had thickening and inflammation in the cecal wall as seen in their abdominal computed tomography. The patients’ laboratory findings and clinical characteristics including treatment modality are shown in Table 3.