

Case Report

Spontaneous perforation of caecum, a rare entity: case report and review of literature

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ABSTRACT

Spontaneous perforation of caecum is a rare entity. Here we present a case of 72-year-old male who had presented with pain, distension of abdomen with tense pneumo-peritonium and peritonitis. Exploratory laparotomy showed caecal perforation without any obvious cause. Various theories have been proposed regarding the pathology but still its etiology remains a dilemma. Though it is not a common entity, it weighs a high importance in case of diagnosis and prompt intervention due to its high mortality from peritonitis and septicaemia.

Keywords: Caecum, Perforation, Spontaneous

INTRODUCTION

Hollow viscus perforations are quite common surgical emergency in our practice of which colonic perforations are rare, caecum being rarer. Many causes have been implicated for caecal perforation of which distal colonic obstruction, trauma and ingested foreign bodies are common.¹ Spontaneous perforation of caecum is a rare entity where in the underlying pathology is unclear. Patients underwent surgery, RT or CT in the department of surgery, G.R. Medical College and J.A. Group of Hospital Gwalior and Cancer Hospital and Research Institute Gwalior, (CHRJ, Gwalior) during the year Jan.2001 to 2006. The patients were investigated and treated according to the protocols.

CASE REPORT

A 72-year male presented to emergency department with history of pain and distension of abdomen for past 8 days. There was one episode of vomiting within first few days of onset of symptoms. There was no history of fever,

loose stools, constipation, hematemesis or malena. On examination patient was drowsy, disoriented and afebrile. Pulse was 120 beats per minute and feeble. Blood pressure was not recordable along with increased respiratory rate. On examination the abdomen was distended, tense with diffuse tenderness and guarding. X-Ray abdomen in erect view showed free gas under both domes of diaphragm (Figure 1).



Figure 1: X-ray abdomen (erect).

Blood parameters revealed total leucocyte count of 11650/ μ l, platelets count of 38,000/ μ l, serum creatinine of 1.94 mg/dl, serum K^+ of 2.0 meq/l. A diagnosis of hollow viscus perforation with peritonitis and septicaemia was made. After proper resuscitation, correction of electrolytes, platelet transfusion exploratory laparotomy was undertaken. Two small perforations were noted on the anterior wall of caecum (Figure 2) along with two litres of purulent peritoneal collection.



Figure 2: Caecum with perforations (blue arrows).

Rest of the bowel wall and caecum were normal with no distal obstruction. A thorough peritoneal toileting was done followed by resection of the perforated portion of the caecum with primary closure and a proximal diverting loop ileostomy. Abdomen was closed over a peritoneal drain. Resected portion of the caecal wall was sent for histopathological study. During post-operative period patient was treated in ICU but succumbed to his illness on 11th post-operative day because of persistent septicaemia leading to multi organ dysfunction. Histopathological examination revealed a non-specific cause.

DISCUSSION

Many reports of spontaneous perforation of caecum have been associated with various clinical conditions such as post caesarean section, dialysis, post renal transplantation, hernia repair, pregnancy and pseudo obstruction.²⁻⁷ Males are commonly affected than females with increased predisposition at extremes of ages.^{1,8} Patients generally presents with signs of peritonitis and tense pneumoperitoneum which is evident on abdominal radiograph in erect posture as free gas under diaphragm. Caecal perforations are clinically significant due to high mortality rates (35-72%) associated with it.⁹ Prompt diagnosis and early surgical intervention is the mainstay of a successful treatment.

Various theories have been put forward in support of spontaneous perforation of caecum including bowel wall ischemia to stool impaction and chronic constipation.^{10,11}

The diameter of caecum >9cm have also been implicated to play a role in the etiology as in cases of pseudo obstruction suggestive of increased intraluminal pressure.⁹ Caecostomy is the mainstay of treatment though limited resections as well as right hemicolectomy have been done in a few cases.¹² In our case due to multiple (two) perforations were present about one centimetre apart, a limited resection of the diseased caecal wall with primary closure was done along with a diverting loop ileostomy.

CONCLUSION

Spontaneous perforation of caecum is a rare and a serious condition. Surgical intervention is the definitive management. Prognosis of caecal perforation is generally poor and is dependent on degree of peritoneal contamination, duration of onset and timely surgical intervention.

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