Case Report

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Surgery Section

Case Report : Spontaneous Caecal Rupture – A Disaster

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ABSTRACT

We present a case of a spontaneous caecal rupture in a 70 years old man with history of undergoing Trans Urethral Resection of Prostate (TURP) prior to the above presentation. The patient presented postoperatively (after TURP) with complains of abdominal distension, pain and vomiting was absent and tachycardia along with respiratory distress. No associated intra abdominal pathology was found. Early diagnosis and prompt surgical intervention is the only way for management of such cases.

Keywords: Abdominal distension, Laparotomy, TURP

CASE REPORT

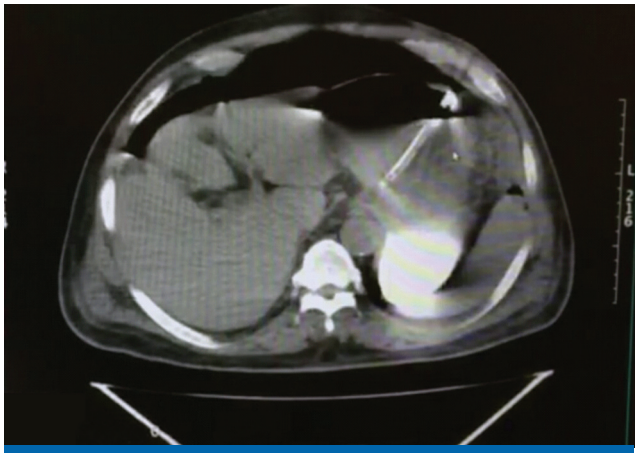
A 70-year-old male patient, post op case of TURP (procedure was uneventful) done 4 days back, complained of mild abdominal pain with distension. Patient had no other significant history. On general examination, patient was tachycardiac though, other findings were normal. Per abdomen showed distension with generalized mild abdominal tenderness and guarding on right side of abdomen and absent bowel sounds. Looking at the history, we suspected that such a complication was not due to the surgery, as any traumatic bowel or bladder perforation wound have presented early or immediately post operatively. Our patient presented 4 days after the surgery and hence the relation with the surgery (TURP) was less likely. Per rectal examination showed remnants of stool on gloves no blood and no masses were palpable. Lab reports showed increased WBC counts with no other significant findings. Standing X-ray abdomen showed a significant amount of gas under diaphragm. USG abdomen was also showing free gas in peritoneal cavity with partially liquefied collection in Right Iliac Fossa (RIF) and Right Hypochondriac Fossa (RHF). Plain CT-scan with contrast administered through the Ryle's tube showed free gas in the peritoneal cavity but no extravasation of contrast was seen. IV antibiotics and supportive treatment was started. We considered the possibility of perforative peritonitis, acute perforated appendix, acute exacerbation of Crohn's disease, acute exacerbation of colitis.

Decision was taken for exploratory laparotomy, which showed feculent peritonitis with dilated bowel loops and irregular perforation in the anterior caecal wall. Right hemicolectomy with ileo-transverse anastomosis was done with thorough peritoneal lavage given. Postoperatively, patient showed poor signs of recovery with collapsing vital parameters. Patient was given respiratory support through a ventilator but succumbed to death 2 days postsurgery. Histopathology report of the excised specimen showed (Acute inflammatory changes) Acute or chronic colitis with peritonitis [Table/Fig-1-4].

[Table/Fig-1]: Standing X-ray abdomen of the patient.

DISCUSSION

Perforation of the healthy caecum is not a common condition. It may have many causes, few of which include trauma to the right side of the abdomen, ingested foreign bodies, e.g.



[Table/Fig-2]: CT scan with 20cc contrast through Ryle's Tube.

[Table/Fig-3]: Intraoperative photograph showing dilated bowel loops and stools smeared on gloves.

[Table/Fig-4]: Excised specimen of the colon.

tooth-pick or a fish-bone, distal large bowel obstruction, unrelieved Volvulus of the caecum. It is extremely rare to find spontaneous caecal rupture in the absence of above factors. We definespontaneous perforation of colon (SPC) as a sudden perforation of apparently healthy colon in absence of diseases or injury [1,2]. SPC is a rare clinical condition which is less often reported, not more than 100 cases have been reported [3]. Severe peritonitis is always the consequence associated with gas under diaphragm on abdominal radiographs and surgical intervention is always necessary. Patients in extremes of age groups, especially elderly and premature infants are involved more commonly, however it can occur in all [4,5].

Spontaneous caecal rupture is an emergency condition and early diagnosis and laparotomy is the only way of treatment. In elderly cases, 65 years is the mean age. Males are more prone to develop perforation, the ratio of elderly males to females being 2:1.The anti-mesenteric border of the gut is the area of physiological ischemia [6]. There is a greater incidence of perforations in mid-sigmoid regions, cecum, rectosigmoid, descending and transverse colon. It was reported by Maurer et al., that 64% of perforations especially feculent, occur in these regions [7]. Clinically, the signs and symptoms may point towards acute appendicitis, Crohn's disease or Tuberculous (TB) enterocolitis. SPC can be diagnosed only when we rule out other causes of perforation. There may be pericolic fat stranding, segmental thickening, and presence of fluids in addition to assessment of vascularity of the bowel on Contrast Enhanced Computerised Tomography (CECT). Abdominal paracentesis can prove to be a valuable tool for diagnosis was suggested by some authors in their study [8].

The mortality of perforated caecum is high, varyingfrom 35 % to 72 % (Albers, Smith & Carter, 1956;Wangensteen, 1955; Lowman & Davis, 1956). Animportant factor is the delay in diagnosis as the clinical picture may be confusing. Gross abdominaldistension with slight pain and tenderness maybe the only positive finding. Straight X-ray of the abdomen will show free gas under the diaphragm. A caecum with a transversediameter of 9cm or over was an indication of impending caecal perforation, which was stated by Lowman and Davis. The caecum usually remains distendedeven after perforation (Rack, 1952, and presentcases) probably because the tear becomes sealed off.Measurement of the size of the caecum is thereforehelpful in anticipating and diagnosing caecal perforation [9-11].

There are 2 types of SPC, idiopathic & stercoral types. In our case, looking at the clinical picture, it was apparently an idiopathic type of perforation. There is minimal fecal contamination in idiopathic type and hence it has a better prognosis compared to the latter. There are two hypotheses to explain idiopathic perforations: Vascular theory suggests combination of hypoperfusion of colonic tissue &regional weakness of the bowel wall plus increased intraluminal pressure which results from intestinal hernia, rectal prolapse, or abnormal depth of Douglas pouch [12]. Stercoral perforation (1.2% of all colorectal surgical emergencies, 3.2% of all colonic perforations) is more frequent with chronic constipation. In their study, Maurer et al., have described stercoral perforation as rounded, of more than 1cm in diameter, with colon being full of stools along with ischemic necrosis of the surrounding mucosa and acute inflammatory reaction. Wisconsin Medical

College study states that 2.3% of all renal transplant patients are prone to SPC [13]. In our case, ascending colectomy was the treatment of choice.

CONCLUSION

SPC is a serious condition and prompt surgical treatment is always the definitive management. Prognosis of SPC is generally poor and is dependent on degree of peritoneal contamination, the time of onset and prompt surgical intervention. We should make every effort to diagnose the condition correctly along with a quick surgical intervention.

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