



IJMIRD 2015; 2(2): 675-677
www.allsubjectjournal.com
Impact factor: 3.672
Received: 09-02-2015
Accepted: 25-02-2015
E-ISSN: 2349-4182
P-ISSN: 2349-5979

Vinaya Ambore

Associate Professor, Department of General Surgery, Grant Government Medical College and Sir JJ Group of Hospitals, Mumbai-400008, Maharashtra, India.

Ajay Pai G

Chief Resident, Department of General Surgery, Grant Government Medical College and Sir JJ Group of Hospitals, Mumbai-400008, Maharashtra, India.

Rajesh Chincholkar

Assistant Professor, Department of General Surgery, Grant Government Medical College and Sir JJ Group of Hospitals, Mumbai-400008, Maharashtra, India.

Correspondence:

Ajay Pai G

Chief Resident, Department of General Surgery, Grant Government Medical College and Sir JJ Group of Hospitals, Mumbai-400008, Maharashtra, India.

Traumatic caecal perforation - A rare case presentation

Vinaya Ambore, Ajay Pai G, Rajesh Chincholkar

Abstract

Caecal perforation following trauma is not a very uncommon occurrence but its presentation varies greatly in common clinical practice ranging from the most common symptom of abdominal pain to a well formed collection discharging as a fistula in the Right iliac region. Herein we present a very rare presentation in a 61 year old male patient who presented with clinical history of trauma to the right hip and inflammatory signs in the right flank suggesting an abscess. Patient was managed initially as an abscess with orthopaedic implications but further study discovered it to be a perforated caecum presenting as an impending fistula. Patient was then managed with a right hemicolectomy. Patient's post-operative condition until discharge and follow up were uneventful.

Keywords: Blunt abdominal trauma, Caecal perforation, Hemicolectomy

1. Introduction:

Caecal perforation is a condition often encountered in surgical practice caused by a variety of factors like appendicitis with perforated base/gangrenous appendix, tuberculosis, malignancy, iatrogenic, diverticular disease [1]. Trauma as a cause of caecal perforation manifests in different ways. It is often diagnosed clinically with diagnostic modalities like radiological evidence being used in aiding diagnosis and managed surgically with an exploration and right hemicolectomy. We present in the following report a peculiar presentation of this condition and its management.

2. Materials and Methods

A 61 year old man presented with a history of fall from the stairs injuring his right hip 15 days back and pain associated with local flank swelling, constipation, and anorexia. His general physical examination was unremarkable. His abdomen was not distended but tender in the right iliac fossa with some voluntary guarding. No rebound tenderness was elicited on examination. Local examination revealed a red tender fluctuant swelling of size 8x6cm over the right lateral flank just above the right iliac crest and involving it. A separate and similar but smaller swelling of size 5x4cm was present over the right gluteal region.

All routine investigations were within normal limits. Plain X Ray film of Abdomen with Pelvic bone + both hips was suggestive of a fractured right iliac crest bone. Chest X Ray- erect was unremarkable (no free air under the diaphragm). Diagnosis of localised abscess was made clinically with a local Ultrasound study suggesting a mild to moderate subcutaneous collection in the right lateral abdominal wall and abdomen showing mild thickening of caecal wall + terminal ileum with no free fluid/collection in the abdomen with visualised bowel loops showing normal peristalsis. Orthopaedic opinion was sought and the patient was consented for a drainage under spinal anaesthesia. Incision and drainage was performed over both swellings (found to be inter connected intra-op) and 200-300ml of foul smelling pus was drained out and sent for culture sensitivity with no evidence of feces/ any intraabdominal connection clinically. Intra and post-operative period being uneventful, the wound soakage on day 1 post operatively was found to be feculent material.

Patient then underwent a Computed tomography scan of the abdomen & pelvis with contrast study which was suggestive of a defect in the posterior abdominal wall muscles laterally and inferiorly with presence of multiple air bubbles with minimal sero-sanguinous fluid collection areas in the muscular plane and subcutaneous fat. Post oral contrast study showed a defect in the contrast filled caecum which traverses through a long fistulous tract through the defect in the muscular wall with the external subcutaneous tissues suggestive of colo-subcutaneous fistula.

Patient underwent an exploration with open right hemicolectomy and Ileo-transverse anastomosis in 4 layers (with absorbable sutures) with closure of posterior abdominal wall defect. On gross examination intra operatively caecum was found to have a 4x3cm sized perforation of its posterior wall with sloughed out edges and absent appendix. Microscopic sections of the histopathological specimen showed thickened wall of the caecum with congestion and induration.

According to the National Institutes of Health [2, 3, 4], perforated caecum symptoms may initially consist of intense abdominal pain that worsens by movement, as well as vomiting, nausea, chills and fever. A perforated caecum is a hole that goes completely through the wall of the colon and is a medical emergency that may require surgery. It can also be life threatening if the contents of the colon are released inside the abdominal cavity. Diseases of the colon [5,6,7], such as diverticulosis, appendicitis, Crohn's disease and ulcerative colitis, most commonly cause a perforated colon; however, certain medical procedures also put a patient at risk for a perforation.

Causes [8,9,10,11,12]

a) Perforated caecum from trauma

b) Perforated caecum From Diverticulosis: Diverticulosis occurs when tiny pockets called diverticula develop in the wall of the colon. Diverticulosis rarely produces significant symptoms, but complications may develop in as many as 20 percent of cases. In severe cases, the diverticula become infected and the colon may even become perforated.

c) Perforated caecum From Appendicitis

d) Perforated caecum From Crohn's Disease Or Ulcerative Colitis

Crohn's disease is a condition in which the digestive tract's lining becomes inflamed and often spreads deeper into the walls of the affected digestive tract. It commonly causes abdominal pain accompanied by severe diarrhoea and can be debilitating. Ulcerative colitis is similar to Crohn's disease in

that it is an inflammatory bowel disease characterized by chronic inflammation. A perforated colon is also a possible complication of ulcerative colitis.

e) Perforated caecum from medical procedures: that involve inserting a tube into the rectum, which can perforate the colon on very rare occasions like during barium enema, colonoscopy, sigmoidoscopy

Symptoms

Possible symptoms of peritonitis include: Abdominal swelling, Chills, Fever, Inability to pass feces or gas, Nausea ,Rapid breathing and heart rate or Vomiting

Surgical Management:

Open right hemicolectomy (open right colectomy) is a procedure that involves removing the caecum, the ascending colon, the hepatic flexure (where the ascending colon joins the transverse colon), the first one-third of the transverse colon, and part of the terminal ileum, along with fat and lymph nodes. It is the standard surgical treatment for malignant neoplasms of the right colon and traumatic caecal perforation; the effectiveness of other techniques are measured by the effectiveness of this technique.

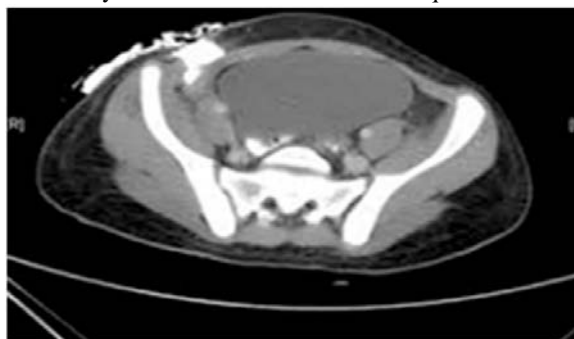


Fig 1: CT Abdomen and pelvis showing the Colo-cutaneous fistulous tract

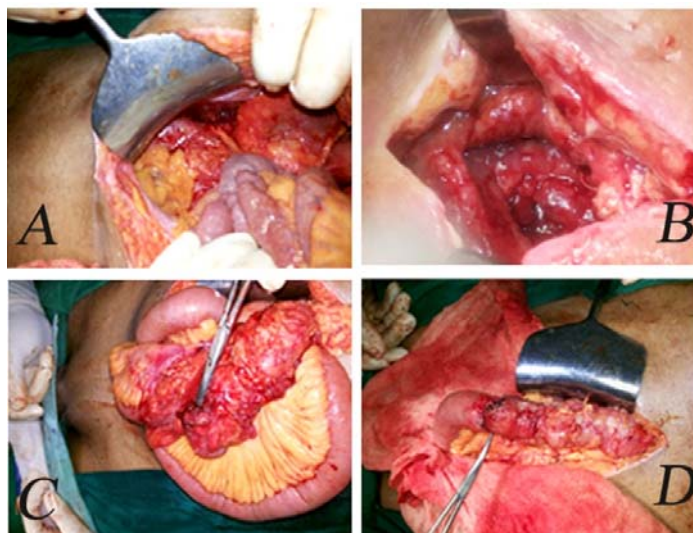


Fig 2: A) Intra operative photograph indicating the site of the perforated caecum B) Magnified view of the same C) Mobilised Caecum and right colon delivered out to demonstrate the perforated caecal segment D) Completed Ileo Transverse anastomosis

4. Conclusion

Caecal perforation following trauma is not a very uncommon occurrence but its presentation varies greatly in common clinical practice ranging from the most common symptom of abdominal pain to a well formed collection discharging as a fistula in the Right iliac region. Such patients need to undergo a thorough workup with due importance given to the internal viscera irrespective of the atypical clinical presentations.

A thorough investigative workup line followed by apt intervention is the cornerstone of management of such traumatic injuries. Patients are managed conservatively followed with a decisive right hemicolectomy.

5. References:

1. Chee Siong Wong* and Syed Altaf Naqvi :Appendicular perforation at the base of the caecum, a rare operative challenge in acute appendicitis, a literature review *World Journal of Emergency Surgery* 2011, 6:36 doi:10.1186/1749-7922-6-36
2. Herscu G, Kong A, Russell D, Tran CL, Varela JE, Cohen A, Stamos MJ: Retrocecal appendix location and perforation at presentation. *Am Surg* 2006, 72(10):890-3.
3. Papapolychroniadis C, Kaimakis D, Fotiadis P, Karamanlis E, Stefopoulou M, Kouskouras K, Dimitriadis A, Harlaftis N: Perforated diverticulum of the caecum. A difficult preoperative diagnosis. Report of 2 cases and review of the literature. *Neumann U, Tech Coloproctol* 2004, 8(Suppl 1):s116-8.
4. Mauvais F, Benoist S, Panis Y, Chafaï N, Valleur P: Three cases of diverticular perforation of the caecum and ascending colon. *Ann Chir* 1999, 53(1):89-91.
5. Fielitz J, Ehlert HG: Perforation of the cecum by a toothpick--a rare differential acute appendicitis diagnosis. Case report and review of the literature. *Chirurg* 2000, 71(11):1405-8.
6. Renner K, Holzer B, Hochwarter G, Weihsbeck E, Schiessel R: Dig Surg. *Needle perforation of the appendix* 2000, 17(4):413-4.
7. Jain DK, Aggarwal G, Lubana PS, Moses S, Joshi N: Primary tubercular caecal perforation: a rare clinical entity. *BMC Surg* 2010, 10:12.
8. Kumar Susim, Fitzmaurice GerardJ, O'Donnell MarkE, Brown Robin: Acute right iliac fossa pain: not always appendicitis or a caecal tumour: two case reports. *Cases J* 2009, 2:88.
9. Cole M, Ayantunde AA, Payne J: Caecal diverticulitis presenting as acute appendicitis: a case report. *World J Emerg Surg* 2009, 4:29.
10. Vitali V, Di Vito A, Menno P: A rare case of a perforated diverticulum of the cecum. *Minerva Chir* 1998, 53(6):531-4.
11. Mosca F, Stracqualursi A, Piazza D, Zappalà O, Lanzafame S, Latteri F: A rare case of acute abdomen: perforated acute diverticulitis of the cecum. *G Chir* 1997, 18(8-9):421-5.
12. Dorfman S, Barboza R, Finol F, Cardozo J: Single diverticulum of perforated cecum. Report of 5 cases. *Rev Esp Enferm Dig* 1990, 77(2):147-8.