Perforated caecal diverticulum as a content of inguinal hernia – report of a rare case

Om Tantia · Samik Bandyopadhyay · Mayank Jain · Prakash Kumar Sasmal · Shashi Khanna · Bimalendu Sen

Received: 5 November 2008 / Accepted: 6 November 2008
© Association of Surgeons of India 2009

Abstract A tablet induced perforation of a caecal diverticulum into a hernial sac is a rare happening. The report discusses the presentation and outcome of a patient with such an unusual disease. A 55-year-old man presented with features of irreducible right sided indirect inguinal hernia. A hard swelling near upper pole of right testis was noted. Scrotal ultrasound revealed a normal testis. At operation caecum and proximal ascending colon were found in the hernial sac with the caecum adherent to the testis. As caecal malignancy could not be ruled out and enbloc Rt Haemicolectomy with Rt orchidectomy was performed. The patient had an uneventful recovery. Pathological examination of the specimen revealed a perforated caecal diverticulum with presence of multiple tablets in its lumen invaginating the upper pole of right testis without any evidence of malignancy. Tablet induced perforation of a caecal diverticulum into a hernial sac is a rare clinical entity. If malignancy cannot be negated at operation, a right haemicolectomy is a safe and feasible option.

Keywords Inguinal hernia · Caecal diverticulum

Introduction

Perforation of a caecal diverticulum into a hernial sac is a rare surgical condition. Still rare is an instance where tablets have resulted in such a perforation. This report describes the clinical presentation, operative findings and clinical outcome of such a case.

Patients and methods

A 55-year-old man presented with a slowly growing right sided inguinoscrotal swelling for last 4 years associated with a history of episodic dyspepsia for 1 month and lower abdominal discomfort for last 2 days. There was no major comorbidity but the patient was a chronic smoker. There was a history of self medication with antacids for the last 2 days. On examination, a large irreducible right inguinal hernia was detected. A scrotal ultrasonogram was performed because of the presence of a hard, non tender non reducible mass 4 cm in diameter at the upper pole of the right testis and inseparable from it. The sonogram showed a hyperechoic mass close to the upper pole of right testis but there was no evidence of testicular tumour. A diagnosis of irreducible omentocele was made.

Though total extra peritoneal (TEP) repair is the preferred operative approach by the authors, in view of the unusual presentation, a conventional “open” surgery was chosen for the patient after discussion with the patient and their relatives. An informed consent was obtained.

The patient was investigated and prepared for surgery under regional anaesthesia as per the institute protocol. Examination under epidural anaesthesia did not provide additional information.

O. Tantia · S. Bandyopadhyay · M. Jain · P. K. Sasmal · S. Khanna · B. Sen
Department of Minimal Access Surgery,
ILS Multispeciality Clinic, DD-6,
Sector – I, Salt Lake City,
Kolkata - 700 064, India

O. Tantia (✉)
E-mail: omtantia@gmail.com

On exploration through a wide inguinoscrotal incision, a large indirect hernial sac was identified and dissected out. On opening the sac between haemostats, caecum, appendix and 5 cm of the proximal ascending colon were found inside. While reducing the contents into the peritoneal cavity, the caecum was found to invaginate the upper pole of right testis and densely adherent to it. The wall of the caecum was thickened and hard thereby suggestive of caecal malignancy.

The situation was explained to the relatives and the anaesthesia was changed to general anaesthesia. The incision was extended upwards and a right haemicolectomy with enbloc resection of the right testis and epididymis was performed. An end-to-end ileotransverse anastomosis was performed subsequently. The hernia was then repaired by darning with prolene sutures. Drains were placed intraperitoneally and in the scrotum and the wound was closed in layers.

Results

The patient had an uneventful recovery. Oral intake was allowed from the third postoperative day, the intraperitoneal and the scrotal drains were removed on the fourth and sixth postoperative days respectively and he was discharged after removal of stitches on the eight postoperative day. The patient was followed up at 1 month, 3 months and then 3 monthly. He is asymptomatic at 1.5 years of follow up.

Pathological examination of the resected specimen showed a perforated caecal diverticulum enveloping the upper pole of the testis and adherent to it. Multiple tablets were present in the diverticulum (Fig. 1). Histopathological study showed diverticulitis. There was no evidence of malignancy. The examination suggested a tablet induced perforation of a solitary caecal diverticulum adherent to the testis.

Fig. 1 Perforated caecal diverticulum adherent to the testis. Multiple tablets can be seen in the lumen of the diverticulum

Discussion

Caecum may form the posterior wall of a sliding right sided hernia [1] and a caecal diverticulum may also thus become a content of a hernial sac. Solitary diverticulum of the caecum is a rare and congenital entity [2] and perforation of such a diverticulum was first described by Potiers in 1992. Since then there have been reports from different parts of the world [3–7]. Though perforated appendix in a hernial sac has been reported [8], there has been no report of a perforated caecal diverticulum in a hernial sac. Similarly, potassium chloride tablet related caecal infarction has been reported [9] but antacid tablet induced large bowel perforation has not been reported.

Right hemicolectomy is considered a safe and effective option for caecal diverticulitis [3, 10] especially if differentiation from carcinoma is difficult at operation. If per operative histopathological/cytopathological assessment is not available/possible, resection, therefore remains an adequate treatment in a clinical scenario like ours.

Conclusions

Unusual presentation of common hernias may occur at times. Similarly, unusual complications may also be associated with common hernias. The abdomen is aptly considered to be a magic box and may spring up surprises at times. If a malignancy cannot be ruled out in a situation as ours, an aggressive resection may be performed.

It may be conclusively said that tablet perforation of a caecal diverticulum into a hernial sac is a rare event and may be treated by resection as has been shown by our experience.

Conflict of interest The authors do not have any disclosable interest

References

1. Ed. RCG Russell, Norman S Williams, Christopher JK Bulstrode (2001) Bailey and Love's short practice of surgery. 24th edition, pp 1280
2. Ed. RCG Russell, Norman S Williams, Christopher JK Bulstrode (2001) Bailey and Love's short practice of surgery. 24th edition, pp 1163
3. Luoma A, Nagy AG (1989) Cecal diverticulitis. *Can J Surg* 32(4):283–286
4. Schmit PJ, Bennion RS, Thompson JE Jr (1991) Cecal diverticulitis: a continuing diagnostic dilemma. *World J Surg* 15(3):367–371
5. Keider S, Pappo I, Shperber Y, Orda R Dig (2000) Cecal Diverticulitis: a diagnostic challenge. *Surg* 17(5):508–512
6. Dorfman S, Barboza R, Finol F, Cardozo J (1990) Single diverticulum of perforated caecum. *Rev Esp Enferm Dig* [Article in Spanish] 77(2):147–148

7. El Nakadi I (1990) Solitary diverticulum of the caecum: apropos of 2 cases. *Acta Chir Belg* [Article in French] 90(5): 231–233
8. Davies MG, O’Byrne P, Stephens RB (1990) Perforated appendix presenting as an irreducible inguinal hernia. *Br J Clin Pract* 44(11):494–495
9. Waninger J (1980) The Haemorrhagic infarction of the caecum. A complication after the intake of Potassium Chloride tablets (author’s transl). *Gastroenterol Z* [Article in German] 18(9):470–473
10. Leslie DR (1984) Solitary diverticulum of the cecal area. *Med J Aust* 141(8):531–532