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Case Report

Diverticular Abscess Presenting as a Strangulated Inguinal Hernia: Case Report and review of the literature.

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ABSTRACT

Potentially life threatening diseases can mimic a groin hernia. We present an unusual case of diverticulitis with perforation and a resulting abscess presenting as a strangulated inguinal hernia. The features demonstrated were not due to strangulation of the contents of the hernia but rather pus tracking into the hernia sac from the peritoneal cavity. The patient underwent sigmoid resection and drainage of retroperitoneal and pericolonic abscesses. Radiological and laboratory studies augment in reaching a diagnosis. The differential diagnosis of inguinal swellings is discussed.

Key Words: Diverticulitis, diverticular perforation, diverticular abscess, inguinal hernia

INTRODUCTION

The association of complicated inguinal hernia and diverticulitis is rare[1]. Diverticulitis can present as left iliac fossa pain, rectal bleeding, fistulas, perforation, bowel obstruction and abscesses. Our patient presented with a diverticular perforation resulting in an abscess tracking into the inguinal canal and clinically masquerading as a strangulated inguinal hernia. The management warranted an exploratory laparotomy and drainage of pus.

CASE REPORT

An 86 year old woman presented to the emergency department with a long standing history of reducible left groin swelling which had become irreducible, painful and erythematous. She noted nausea, anorexia and increasing abdominal pain. She had no previous history of any surgery or trauma and was on warfarin for atrial fibrillation.

Fig 1. Erythematous and indurated left groin area

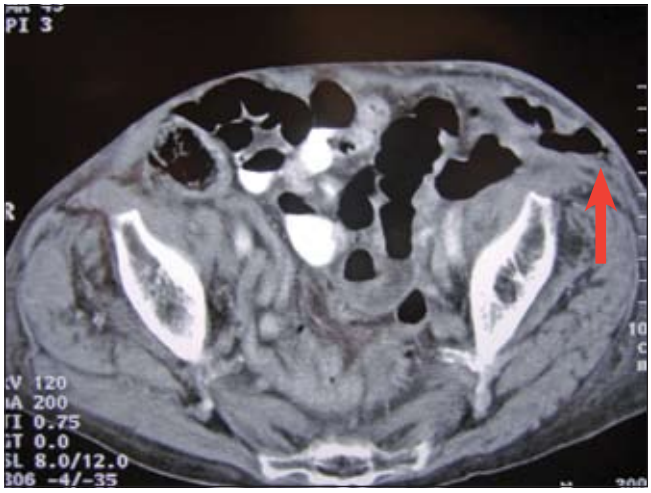

Fig 2. CT scan showing inflammatory changes with stranding of the subcutaneous fat in the left groin and a large bowel diverticulum

On admission, she had a tachycardia (pulse 102 beats/min) and a temperature of 37.5^{O}C. Blood pressure was 130/69 mmHg. On examination the abdomen was soft with a swelling in the left groin that was nonfluctuant, erythematous, indurated and tender (Fig 1). There was no peritonitis. Digital rectal examination revealed tenderness anteriorly. Blood laboratory values were unremarkable with the exception of a raised CRP of 137 mg/l (normal <10 mg/l)and leukocytosis (13,000/mm^3). No intra-abdominal free air was identified on an erect chest X-ray. CT scan (Fig 2) of the abdomen showed bilateral inguinal herniae, with marked inflammatory changes with stranding of the subcutaneous fat on the left side. The differential diagnosis included an irreducible small bowel hernia without obstruction and herniation of the sigmoid colon with associated diverticular abscess.

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A lower midline laparotomy was performed. Findings showed sigmoid diverticulitis complicated by perforation and a paracolonic abscess. The abscess tracked along the round ligament through the inguinal canal and into the subcutaneous space of the left lower quadrant, and was associated with a plug of indurated inflamed omentum into the inguinal canal. The pus was drained and after a wash out, a standard Hartmann's procedure was performed. The inguinal hernia was not repaired at this stage. The patient continued on IV antibiotics (cefuroxime and metronidazole). Pus cultures were positive for *K. pneumonia* and *B. fragilis.* The post-operative course was complicated with respiratory tract infection and a confusional state. Pathology showed a perforation in a sigmoid diverticulum with histological examination confirming diverticular disease with diverticulitis and peridiverticular abscess formation and a perforation. The patient responded to antibiotic treatment along with other standard chest management and had a slow recovery.

DISCUSSION

A wide variety of pathological processes and diseases present as atypical inguinal hernia. We present this unusual case of diverticulitis with perforation. The abscess formed tracked along the round ligament through the inguinal canal and presented clinically as a strangulated inguinal hernia. Appendicular abscesses[2] and appendicitis[3] have been reported on the right side in the hernial sac. The presence of an appendix within an inguinal hernia is not uncommon and is labelled an Amyand hernia[4].

Enlarged lymph nodes, lipomas or abscess of the psoas muscle[5] can present as an inguinal swelling. Patients with no evidence of bowel obstruction clinically and radiologically, presenting with a painful inguinal swelling have a risk of significant extra-abdominal and intra-abdominal disease processes. An infected hip prostheses abscess[6], a subcutaneous fungal abscess[7], pancreatic pseudocyst[8], leaking abdominal aortic aneurysm[9], and peritonitis[10] can present as an atypical inguinal hernia. In females leiomyoma of the round ligament[11], endometrial carcinoma[12], ovarian cysts[13] and Bartholins cysts[14] are reported. In males, torsion of an undescended testis[15], hydrocele and sarcoma of the spermatic cord[16,17] can present as an inguinal swelling. Sarcoma[18], lymphoma[19], and metastatic carcinoma from ovary, gastrointestinal tract, prostate and mesothelium[20] have been confused with the presentation of inguinal hernia. We could not find any reports of complicated diverticulitis to present as a strangulated hernia in patients with pre-existing inguinal hernia.

CONCLUSION

We report a case of perforated sigmoid diverticular abscess, on physical examination and radiographic evidence thought to be a strangulated inguinal hernia. Careful history taking, physical examination and a CT scan of the abdomen and pelvis should help reach a diagnosis, as it is important in planning the management especially in elderly patients with co-morbidities. Thus radiological evidence of incarceration, signs of bowel obstruction and local signs of inflammation should help direct the differential diagnosis. The proposed treatment remains surgery and drainage of pus and resection of the diseased bowel. The main conclusion is that an appearance of a tender red irreducible hernia may not always be due to strangulation of the contents but also due to inflammation of the hernia secondary to intra-abdominal pathology such as generalised peritonitis or abscess formation.

The authors have no conflict of interest.

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