INTRODUCTION

Presence of a perforated appendix within the hernial sac was described by Claudius Amyand for the first time in an 11-year-old boy who had undergone successful appendicectomy in year 1735.1 Since then, the presence of the appendix within an inguinal hernia has been referred to as “Amyand's hernia”, and still remains a rare occurrence. The term Amyand's hernia is being used variously to refer to occurrence of an inflamed appendix within an inguinal hernia, a perforated appendix within an inguinal hernia or a non-inflamed appendix within an irreducible inguinal hernia.2 Rarity of Amyand’s hernia together with certain uncommon features present in a patient, prompted to report this case.

CASE REPORT

A 64-year-old male, known to have left sided inguinal hernia for 5 years, presented to the Accidents and Emergency Department with 2 days history of fever, pain, vomiting and irreducibility of the hernia. He had a recent increase in the size of swelling. He was known to have psoriasis. Other than that, he was not known to have any other illnesses and was currently on nil medication. On examination, he was dehydrated with temperature of 38°C, blood pressure of 104/63 mmHg and pulse rate of 104/minute. There were generalized scaling and erythematic psoriatic patches all over the body including groin. He had bilateral pedal edema. Examination of chest showed bilateral basal crepitations. His abdomen was distended with exaggerated bowel sounds. There was a 30 x 15 cm pear shaped, left inguino-scrotal lump reaching up to the base of the scrotum. The lump was tense, tender and irreducible. Both testes were palpable in the scrotum. The transillumination test was however positive. Right sided inguino-scrotal region was unremarkable. ECG showed features of ischemia. Troponin I was mildly elevated. His echo cardiogram revealed fair overall left ventricular systolic function with diastolic dysfunction. The cardiologist on call diagnosed him to have mild left ventricular failure and optimized him with frusemide and nitroglycerine.

After adequate resuscitation he was taken up for emergency surgery. Under general anaesthesia the left inguinal canal was opened. A strangulated irreducible indirect hernia was found with constriction at the external ring. On opening the sac, 1200 cc of amber colored fluid was found along with gangrenous cecum and appendix. The small bowel loops were dusky initially regaining the normal pink colour on releasing the constriction (Figure 1). The contents were pushed back and it was then decided to explore the abdomen with a lower midline incision (Figure 2). A gangrenous floppy mobile cecum along with a gangrenous appendix which had herniated through the deep ring on the left side was seen. No situs inversus or malrotation of the gut was noted. Rest of the viscera were normal. A limited right hemicolectomy was done with ileo-colec anastomosis. After closing the abdomen the hernia was repaired by darning of the posterior wall with 0-PROLENE. He was adequately covered with broad spectrum antibiotics leading to an uneventful recovery. He was

ABSTRACT

Appendicitis within an Amyand's hernia is a rare clinical entity in itself and becomes especially more rare if it occurs in the left inguinal region. We report this rare case of Amyand's hernia where the appendix was found along with gangrenous ceacum during surgery for strangulated left inguinal hernia in an adult, who underwent resection, anastomosis and simple repair for his hernia.

seen by dermatologist for skin condition during admission and was managed with local dermatological ointments. He had regular cardiac follow-ups also while he was admitted. The histopathology report was consistent with gangrenous ceacum and appendix. One year after his surgery he was doing well and there was no evidence of recurrence of the hernia.

**DISCUSSION**

A hernia is defined as the protrusion of a viscus or part of viscus through the walls of its containing cavity. It remains a commonly encountered condition in the inguinal region, where the hernial sac may contain the omentum or small bowel. However, certain unusual contents may be encountered such as the bladder, a Meckel’s diverticulum (Litre’s hernia), or a portion of the circumference of the intestine (Richter’s hernia). Although, the last two mentioned are well known even by their eponyms in standard text books and teaching practice, Amyand’s hernia remains relatively unknown despite having been first reported nearly 3 centuries ago in the year 1735 by Claudius Amyand.

The presence of the appendix within an inguinal hernia has been referred to as Amyand’s hernia, and still remains a rare occurrence. The incidence of having a normal appendix within an inguinal hernial sac is about 1%; where as only 0.1% of all cases of appendicitis present in an inguinal hernia, further underscoring the rarity of the condition.3 The pathophysiology of Amyand’s hernia is unknown. Weber et al. proposed that due to herniation, the appendix becomes more vulnerable to micro-trauma causing adherence of appendix to the hernial sac due to fibrosis.4 This hypothesis that inflammatory swelling may lead to incarceration and subsequent impaired blood supply and bacterial overgrowth, was supported by Abu-Dalu and Ucra.5 Muscle contraction and changes in abdominal pressure cause compression of appendix resulting in decreased blood supply and secondary inflammation.

Most of the cases occur on the right side, probably as a consequence of the normal anatomical position of the appendix or/and also because right-sided inguinal hernias are more common than left-sided hernias. There have been 3 reported cases of left sided Amyand’s hernia.5 Although, Amyand’s hernia on the left side is rare and may be associated with situs inversus, intestinal malrotation or a mobile ceacum.7 In this patient, a mobile ceacum explained its occurrence on the left side as, at laparotomy no situs inversus or malrotation of the gut was noted. The correct pre-operative diagnosis is difficult and requires a high suspicion of index for this entity. Leucocytosis and fever are uncommon, though this patient was febrile with normal white cell counts. Although, pre-operative computed tomography (CT) of the abdomen may be helpful in reaching the correct diagnosis,8 however, CT is not routinely used in such cases.

The recommended treatment is appendicectomy with primary hernia repair. Synthetic mesh should not be used in the repair of contaminated abdominal wall defects because the prosthetic material can increase the inflammatory response and result in wound infection and a possible appendicod stump fistula.9 The use of synthetic mesh should be avoided even if the appendix appears normal, as sub-clinical contamination is bound to occur inspite all aseptic precautions. During laparoscopic repair of inguinal hernia, this condition has been identified and dealt with.10

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**REFERENCES**