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Case Report

Strangulated Hernia with Appendicitis: A Rare Case of Amyand's Hernia in a 72-Year-Old Man

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Abstract

Introduction: Amyand's hernia is an extremely rare and atypical hernia that is difficult to diagnose clinically characterised by engagement of the appendix in the inguinal sac. The aim of this report is to describe a case of Amyand's hernia in a 72-year-old man with a history of hypertension on well-controlled calcium channel blockers, and to highlight the importance of surgical exploration in the diagnosis and management of this condition.

Case Report: We present a rare case of a 72-year-old man with a history of well-controlled calcium channel blocker hypertension presenting with intermittent right inguinal pain. The patient was admitted to the hospital's surgical emergency department and was deemed in need of surgical exploration due to suspected strangulated hernia or irreducible hernial engorgement. Preoperative examination revealed no signs of appendicitis. During surgery, an Amyand's hernia was discovered with an inflamed appendix. Intraoperative work-up was otherwise normal.

Discussion: Amyand's hernia is an extremely rare condition, accounting for less than 1% of all adult inguinal hernias. Acute appendicitis in the context of Amyand's hernia is even rarer, accounting for only 0.1% of all cases of acute appendicitis. This hernia may remain asymptomatic until inflammation of the appendix leads to incarceration, strangulation, necrosis, perforation or rupture. Early symptoms include inguinal tenderness and swelling. CT scanning is essential for accurate and early diagnosis of Amyand's hernia, which can help avoid the complications of delayed surgery.

Conclusion: This case highlights the importance of early CT scanning for accurate diagnosis of Amyand's hernia with appendicitis. Management of this rare condition requires appendectomy combined with repair of the hernia, depending on the degree of inflammation of the appendix and the anatomical features of the patient.

Keywords: Amyand's hernia; Inguinal hernia; Appendicitis ; Hernial sac; CT scan; Appendectomy

Introduction

The contents of the inguinal hernial sac may contain various structures such as intraperitoneal fat, the small or large intestine, the bladder, the ovaries and even the appendix [1]. Among hernias, Amyand's hernia is distinguished by the presence of the appendix, whether inflamed or normal, in the inguinal hernial sac. The symptoms associated with this hernia may mimic those of an incarcerated hernia [2]. The incidence of an inflamed or perforated appendix found in Amyand's hernia is estimated to be 0.1% of all cases of appendicitis [3]. Amyand's hernia usually occurs on the right side and is characterised by tenderness and swelling in the inguinal or inguinoscrotal region [4].

Diagnosis of Amyand's hernia is clinically difficult due to its rarity and similar presentations with inguinal hernias. The diagnosis is often made incidentally, on imaging or during exploratory surgery [5-7]. Imaging tests such as Ultrasound (US) and Computed Tomography (CT) play a crucial role in distinguishing the different pathologies [5,7,8]. Computed Tomography (CT) allows direct visualisation of the appendix within the inguinal canal, facilitating accurate diagnosis [5]. According to Fernando et al, Amyand's hernia can be classified into three types according to the degree of inflammation of the appendix: (A) intact appendix without signs of inflammation, (B) appendix with

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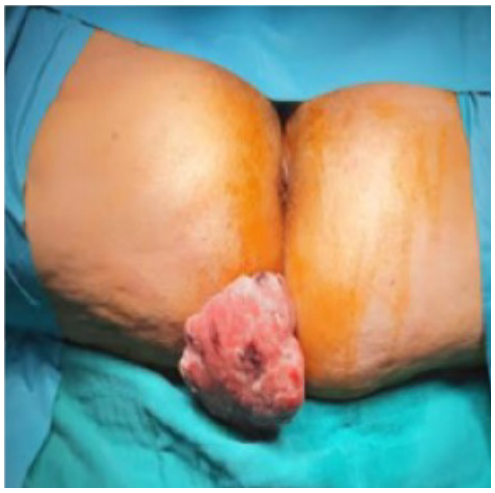

Figure 1: Preoperative image of a giant right gluteal mass.

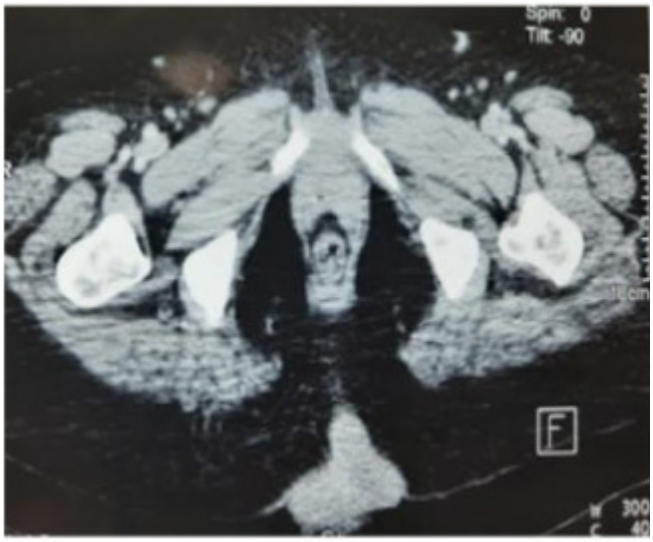

Figure 2: Computed tomography scan showing gross mass of the region Gluteal.

signs of inflammation, and (C) perforated appendix [9]. Type A accounts for almost 90% of all cases [9]. Types B and C require appendectomy.

In the present case, we describe a rare case of an inflamed appendix in the inguinal hernial sac, diagnosed with difficulty, highlighting the importance of early CT scanning for accurate and early diagnosis of Amyand's hernia. Amyand's hernia was discovered during exploratory surgery following a strangulated hernia. This observation thus highlights the importance of imaging and exploratory surgery in the management of strangulated hernia and in the detection of rare hernial pathologies such as Amyand's hernia.

Case Report

We report the case of a 72-year-old man with a history of well-controlled hypertension on calcium channel blockers. The patient was admitted to the surgical emergency department of our hospital with suspected strangulated hernia. Given the presence of characteristic clinical symptoms such as acute groin pain for 3 days and a hernial protrusion already diagnosed as an inguinal hernia, urgent surgery was indicated as soon as anaesthetic conditions allowed. The pre-operative check-up did not reveal any biological abnormalities, such as a blood ionogram, renal function, blood glucose, and an electrocardiographic trace.

In accordance with the department's protocols, no prior imaging was carried out in this case of hernia emergency. The

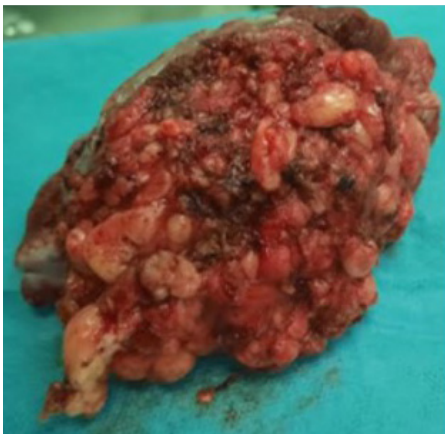

Figure 3: Image showing the surgical specimen of the right gluteal region.

intense pain and irreducible hernia were sufficiently suggestive clinical signs to justify immediate surgical exploration.

At the time of surgery, an Amyand's hernia was discovered, accompanied by inflamed appendicitis. No other abdominal abnormalities were identified during the preoperative work-up. Appendectomy was performed successfully, and the patient recovered without postoperative complications.

This case highlights the rarity of Amyand's hernia in an elderly patient, and the importance of prompt surgical management in hernial emergencies with obvious clinical symptoms

Discussion

Amyand's hernia is a rare form of hernia characterised by the presence of the appendix, whether inflamed or normal, in the inguinal hernial sac. The condition was first described in 1735 by Claudius Amyand [12]. It occurs more frequently in men than in women, accounting for approximately 1% of all inguinal hernias [13]. The appendix may remain intact, but if diagnosed late, it may become inflamed, leading to perforation and subsequent abscess formation. Clinical signs and symptoms depend on the position of the wormlike appendix, usually with swelling, pain and tenderness in the right inguinal region [14]. Clinical symptoms can be misleading and resemble those of a strangulated inguinal hernia more than the classic signs and symptoms of appendicitis [15]. In such cases, only imaging can confirm the contents of the incarcerated inguinal hernia, and the surgical approach may vary depending on the findings. Surgical treatment, usually a hernia repair with or without concomitant appendectomy, is generally recommended [15].

Ultrasound is a commonly used imaging technique to assess the inguinal region and detect different types of inguinal hernia, including Amyand's hernia. It is particularly recommended in children due to its safety and affordability [8]. However, ultrasound remains operator-dependent. Abdominal CT offers increased specificity of detection and diagnostic accuracy for Amyand's hernia, reaching almost 90% [14].

When the diagnosis remains uncertain, surgery can be both diagnostic and therapeutic. There is no standard protocol for the management of Amyand's hernia, and surgical decisions depend on a number of factors, including the presence of an inflamed appendix, surgical site contamination, patient age and anatomical features [16]. In cases of normal appendix, the appendix may be replaced in the peritoneal cavity or an appendectomy may be performed. The choice of treatment often depends on the surgeon's personal preference, and the removal of a healthy appendix is still the subject of medical debate with no

clear consensus [17]. Hernioplasty without appendectomy is a preferred option in patients with a normal appendix [10,18]. In our case, we opted for appendectomy with partial omentectomy followed by hernia repair without the use of mesh, without encountering any postoperative complications.

Conclusion

epidermoid cyst of the buttock is a rare benign tumor, whose diagnosis is established by imaging and confirmed by histopathological examination. Epidermoid cysts are treated surgically, with complete resection of the tumor and its capsule, if possible. Follow-up is necessary to monitor for recurrence, although this is rare. Surgeries have a high success rate and are considered the treatment of choice for squamous cysts of the buttock.

Author Statements

Consent

Written informed consent was obtained from the patient for publication of this case and for the accompanying images.

Ethical Approval

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

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