AMYAND'S HERNIA: A CASE REPORT

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ABSTRACT

Amyand's hernia is a condition characterised by the presence of vermiform appendix in an inguinal hernia sac. It is a rare entity with difficult preoperative diagnosis that does not affect management. We hereby report a case of Amyand's hernia in a 9-month-old infant presenting with a right-sided irreducible swelling at the inguinoscrotal region.

KEYWORDS

Inguinal Hernia, Amyand's Hernia, Vermiform Appendix.

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INTRODUCTION

A hernia is defined as an abnormal protrusion of an organ or tissue through a defect in its surrounding walls. Defects most commonly involve the abdominal wall particularly the inguinal region. The usual contents are bowel or omentum, but may also display unusual contents like Meckel's diverticulum, portion of a circumference of large intestine or bladder. When the content of the hernial sac is vermiform appendix whether normal or inflamed, it is termed as Amyand's hernia. It is an eponymous disease named after an English surgeon, Claudius Amyand (1680-1740) who performed the first appendectomy in 1735 on an 11-year-old boy with a perforated appendix.¹

Case History

A 9-month-old infant who had a right-sided reducible swelling at the inguinoscrotal region since 3 months of age presented at the Emergency Department RIMS with 1-month history of increase in size and irreducibility of the swelling and 3 days history of vomiting and abdominal distension with decrease in feeding. However, there was no history of bowel or bladder abnormalities (Fig. 1).

On examination, child was lethargic, afebrile with heart rate of 136 beats per minute, and weight was 6 kg. Local examination showed a globular swelling of 5 cm × 8 cm, which is tense, tender, irreducible with normal overlying skin, and getting above the swelling was not possible. Routine investigations were within normal limits.

Child was started on intravenous fluids, antibiotics, and planned for surgery and he was explored within 12 hrs. of admission. Intraoperatively, the appendix and the caecum were found to be present in the hernial sac and both were in viable condition. There was no adhesion. The contents were reduced and high ligation of the sac was performed (Fig. 2).

Postoperative hospital stay was uneventful. Child was discharged on seventh postoperative day with advice for regular follow up (Fig. 3).

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Fig. 1: 9-Month-Old Infant with Right-Sided Inguinoscrotal Swelling

Fig. 2: Intraoperative Finding: Viable Caecum and Appendix with No Adhesions

Fig. 3: Postoperative Period: Uneventful

DISCUSSION

Inguinal hernias acquire significance when the contents are unusual. Amyand's hernia is three times more common in children than in adults probably because of patent processus vaginalis.² The incidence of having a normal appendix within the hernial sac varies from 0.5% to 1%. Only 0.1% of all cases of appendicitis present in an inguinal hernia underscoring the rarity of the condition.³

Exact pathophysiology of Amyand's hernia is not known. Some authors believe that contraction of abdominal muscles result in entrapment of the appendix leading to compromised blood flow with resultant inflammation and bacterial overgrowth. However, some authors believe that appendicitis is an incidental finding with Amyand's hernia.⁴

Clinical presentation is variable and influenced by the presence of inflammation of the appendix and peritoneal contamination. Majority of the reported cases present with the features of an obstructed or strangulated inguinal hernia. It must be considered in an irreducible inguinal hernia as well as in the differential diagnosis of an acute scrotum.

There is no standard protocol for the management of Amyand's hernia. Management depends on the state of the appendix. Majority of authors agree that a normal appendix within the hernial sac does not require appendectomy. Traditionally, Amyand's hernia has been treated with open appendectomy and primary hernia repair. However, laparoscopic surgery has also been reported for treatment of this condition.⁵ In neonates with underlying appendicitis, herniotomy and appendectomy should be performed.⁶

In adults, the repair of the hernia should be performed with Bassini or Shouldice techniques without making use of synthetic meshes or plugs within the defect due to the high risk of suppurative of such materials.⁷

Preoperative diagnosis is quite difficult. CT scan of the abdomen could be useful though routinely not done. In this case, a non-inflamed appendix was present in an irreducible hernia.

CONCLUSION

We conclude that the presence of the appendix in an inguinal hernial sac referred to as "Amyand's hernia", is an uncommon entity. Despite its rarity, the fact that the majority of such cases present as a complicated inguinal hernia making preoperative diagnosis difficult demands that surgeons consider this condition in their differential diagnosis.

Early operative intervention is the mainstay of successful management of Amyand's hernia. Awareness of this disease is of utmost importance in order to avoid serious complications that can occur with this condition.

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