

# Left-sided Amyand's hernia

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## ABSTRACT

**The chance finding of the vermiform appendix lying within an inguinal hernia occurs in approximately one percent of cases of inguinal hernia, and is known as an Amyand's hernia. We report a rare presentation of Amyand's hernia, where the appendix was found within the left hernial sac during surgery for an obstructed inguinal hernia in a nine-month-old male baby.**

**Keywords:** acute abdomen, Amyand's hernia, appendix, appendicitis, inguinal hernia

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## INTRODUCTION

Claudius Amyand, surgeon to King George II, was the first to describe the presence of a perforated appendix within the hernial sac (in 1735) of an 11-year-old boy who had undergone successful appendectomy<sup>(1)</sup>. 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. We present such a case of Amyand's hernia discovered at surgery for a left-sided obstructed inguinal hernia in a nine-month-old baby, and briefly review the literature on the topic.

## CASE REPORT

A nine-month-old male baby, who was known to have left-sided inguinal hernia since birth, presented with the complaint of bilious vomiting for two days prior to admission. Clinical examination revealed a tender, irreducible swelling in the left inguinal region and diagnosis of obstructed left inguinal hernia was made. He was started on intravenous antibiotics (Ceftriaxone 250 mg twice daily, Metronidazole 35 mg thrice daily) and prepared for surgery.

After administration of general anaesthesia, an incision was made in the skin crease of the left inguinal region, just above the superficial ring. The deep fascia was opened and the external oblique aponeurosis identified and parted to reveal the spermatic cord, where the hernial sac was identified

and isolated all around. On opening the hernial sac, the appendix and the caecum were found to be lying within, with minimal adhesions to the sac. The caecum was freed of the flimsy adhesions to the sac and reduced within the abdominal cavity.

Since the appendix was not inflamed, it was not removed, but replaced along with the caecum. Herniotomy was performed, and the patient transferred to the ward, where he had an uneventful post-operative stay. A contrast study was done on out-patient follow-up to rule out the possibility of situs inversus or malrotation of the gut, keeping in mind the unusual site of the appendix (on the left), but it was normal.

## DISCUSSION

A hernia is defined as the protrusion of a viscus or part of a 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 (Littre'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 textbooks and teaching practice, Amyand's hernia remains relatively unknown despite having been first reported nearly 170 years ago.

The term Amyand's hernia refers to the presence of the appendix within the hernial sac, and has been variously defined as the occurrence of either an inflamed or perforated appendix within an inguinal hernia, or simply, the presence of a non-inflamed appendix within an irreducible inguinal hernia<sup>(1,2)</sup>. The incidence of having a normal appendix within an inguinal hernial sac is about 1%, whereas only 0.1% of all cases of appendicitis present in an inguinal hernia<sup>(3)</sup>, further underscoring the rarity of the condition.

Most of the cases occur on the right side<sup>(4)</sup>, probably as a consequence of the normal anatomical position of the appendix, and also because right-sided inguinal

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hernias are more common than left-sided hernias. Although Amyand's hernia has also been reported on the left side, this is rare and may be associated with situs inversus, intestinal malrotation or a mobile caecum<sup>(5)</sup>. In our case, a mobile caecum was probably the cause of finding the appendix within the hernial sac on the left, as we were able to rule out the other two conditions by a post-operative contrast study.

Most of the reported cases present with underlying appendicitis, with the features of an obstructed or strangulated hernia. Perforation of the appendix within the sac may simulate perforation of the intestine within the hernia, and it is rare to be able to make a clinical diagnosis of an Amyand's hernia pre-operatively. Although pre-operative computed tomography (CT) of the abdomen may be helpful in reaching the correct diagnosis<sup>(2)</sup>, it is not our routine practice to subject the patient to CT after making a diagnosis of a complicated hernia. Therefore, we were only able to make the diagnosis intra-operatively, after opening the hernial sac.

The surgical options for tackling the appendix in an Amyand's hernia depend on the mode of presentation. The presence of a normal appendix does not require appendectomy, whereas acute appendicitis necessitates appendectomy within the hernial sac<sup>(6)</sup>. As is obvious, the presence of pus, or perforation of the appendix is an absolute contraindication to the placement of a mesh for hernia repair. Associated intra-abdominal abscesses, if present, may be dealt with, either percutaneously or by open drainage<sup>(1)</sup>.

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