

Case report

## Amyand's Hernia: A Case Report

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An Amyand's hernia is a rare type of inguinal hernia in which the appendix is trapped within the hernial sac. It is named after Claudius Amyand, a French surgeon who performed the first successful appendectomy in 1735 on a patient with an Amyand's hernia. In this case report, we highlight a rare case that contributes less than 1% of all inguinal hernias and how it should be managed by the surgeon. As surgeons, we should expect even the rarest cases, although this condition may remain asymptomatic and behave like a normal inguinal hernia. As a result, this type of hernia is most of the times diagnosed during the procedure management of this type of hernia should be individualized according to the appendix's inflammation stage.

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### Introduction

Amyand's hernia is defined as an inguinal hernia that contains the appendix within the hernia sac. In 1735, a surgeon named Claudius Amyand first described an 11-year-old boy with an incarcerated inguinal hernia containing a perforated appendix. Subsequently, this type of hernia was named Amyand's hernia, which was rarely encountered in clinical practice. Amyand's hernia occurs in only 1% (0.19–1.7%) of all inguinal hernia cases [1]. Amyand hernia prevails more in children (approximately 3 times) than in adults because of the patency of the processus vaginalis in children. The management of amyand hernia mostly depends upon the classification and surgical management protocol by Losanoff and Basson [2].

According to Losanoff and Basson's classification, which was established in 2007, Amyand's hernias can be classified into four discrete types according to the appendix presentation within the hernia sac. Type 1: Amyand's hernia contains a normal appendix within the hernia sac. Type 2: Hernia is combined with acute appendicitis, but with no signs of perforation, or other source of abdominal sepsis. Type 3: hernia is combined with complicated acute appendicitis and intra-abdominal sepsis. Type 4: Amyand's hernia is accompanied by intra-abdominal pathology outside the hernia sac [3]. As a result, in this report, we highlight a rare case that contributes less than 1% of all inguinal hernias and how the surgeon should manage it.

### Case presentation

We present a case of a 21-year-old Libyan male who presented with a right-sided inguinal hernia. He had no known chronic illnesses, and his physical examination and laboratory tests were within normal range. The patient underwent right-sided inguinal hernia repair. However, during the procedure, it was discovered that the appendix was in the contents of the hernia. The surgeon decided to perform a herniotomy and appendectomy. The appendix was found to be normal, and there were no complications during the surgery. The patient had a good outcome and was discharged from the hospital on the third day after surgery.

### Discussion

The presence of the appendix in the hernia sac is a rare finding. This condition is known as Amyand's hernia [4]. This condition can present at any age. It is more frequently seen in childhood, as a persistent patent processus vaginalis is considered the most common underlying etiology of an Amyand's hernia [6]. The diagnosis of Amyand's hernia can be difficult, as the symptoms are often similar to those of a regular inguinal hernia. Imaging studies, such as ultrasound or computed tomography (CT), can help make the diagnosis [6].

The treatment of Amyand's hernia is surgical [5]. The surgeon will need to perform a herniotomy to reduce the hernia and remove the appendix. In some cases, the appendix may be inflamed or perforated. If this is the case, the surgeon will also need to perform an appendectomy. The prognosis for patients with Amyand's hernia is good. The surgery is usually straightforward and complications are rare. Patients typically make a full recovery and can return to their normal activities soon after surgery.



**Figure 1. Long vermiform appendix protruding from the right inguinal hernial sac**

## Conclusion

This case report highlights the importance of early diagnosis and treatment of Amyand's hernia, as it can prevent complications. As surgeons, we should expect even the rarest cases. This condition may remain asymptomatic and behave like a normal inguinal hernia. As a result, this type of hernia is most of the times diagnosed during the procedure. Management of this type of hernia should be individualized according to the appendix's inflammation stage. In our experience, we would highly recommend a second opinion during the procedure itself, since this is a rare case, and the decision-making process may be quite complicated. We recommend that early treatment of inguinal hernia can prevent complications in such cases

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## المستخلص

فتق أمياند هو نوع نادر من الفتق الإربي، حيث تكون الزائدة الدودية مع صورة داخل كيس الفتق. سمي هذا النوع تيمنا بكلوديويس أمياند، الجراح الفرنسي الذي أجرى أول عملية استئصال ناجحة للزائدة الدودية عام 1735 لمريض مصاب بفتق أمياند. في تقرير الحالة هذا، نسلط الضوء على حالة نادرة تمثل أقل من 1٪ من جميع حالات الفتق الإربي، وكيفية إدارتها من قبل الجراح. بـ صفتنا جراحين، يجب أن نتوقع حتى الحالات النادرة، على الرغم من أن هذه الحالة قد تبقى بدون أعراض وتصرف مثل الفتق الإربي الطبيعي. ونتيجة لذلك، غالبا ما يتم تشخيص هذا النوع من الفتق أثناء العملية الجراحية. يجب أن يخصص علاج هذا النوع من الفتق لكل حالة على حدة وفقا لمرحلة التهاب الزائدة الدودية.