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Amyand's hernia: A case report and review of the literature

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ABSTRACT

INTRODUCTION: An Amyand hernia is a rare disease where the appendix is found within an inguinal hernia sac. This rare entity is named after the French born English surgeon, Dr. Claudius Amyand. Inguinal hernias are one of the most common surgeries that a general surgeon performs with more than 20 million inguinal hernia repairs performed yearly worldwide. The incidence of finding an appendix within the hernia sac is rare, occurring in less than 1% of inguinal hernia patients and when complications arise such as inflammation, perforation, or abscess formation it becomes exceptionally rare with an incidence of about 0.1%.

PRESENTATION OF CASE: A 59-year-old male with a history of a previously reducible right inguinal hernia presented to the Emergency Department with acute abdominal pain, right groin mass. Computed tomography (CT) confirmed a right incarcerated inguinal hernia with herniated loops of bowel within the right inguinal region. Patient was subsequently treated with an appendectomy and tension free hernia repair with mesh with a successful outcome.

DISCUSSION: The current generally accepted treatment algorithm for Amyand's hernia is essentially contingent on the appendix's condition within the hernia sac. Controversy exists regarding the application of mesh in type 2 Amyand's hernia. More research is needed to provide surgeons with evidence-based standardized approaches for dealing with this unique situation.

CONCLUSION: This case report reviews a rare entity known as an Amyand's hernia that presented as an incarcerated hernia that was diagnosed intraoperatively with an inflamed appendix, recognized as a type 2 Amyand's hernia.

1. Introduction

In 1735, Dr. Claudius Amyand performed the world's first successful appendectomy, at St. George's Hospital in London. The patient was an 11-year old boy who had an inguinal hernia combined with an acutely inflamed appendix [1]. This rare pathology of an appendix with or without inflammation within the hernia sac is named after the French born English surgeon. Inguinal hernias are one of the most common surgeries that a general surgeon performs with more than 20 million inguinal hernia repairs performed yearly worldwide. The incidence of finding an appendix within the hernia sac is rare, occurring in less than 1% of inguinal hernia patients and when complications arise such as inflammation, perforation, or abscess formation it becomes exceptionally rare with an incidence of about 0.1% [2]. With signs and symptoms identical to an incarcerated inguinal hernia, an Amyand's hernia is very difficult to diagnose preoperatively and therefore diagnosis is predominantly made intraoperatively.

Critical to successful outcomes is the correct surgical treatment plan that is predominately made intraoperatively. Therefore, surgeons should be well versed on the different types of Amyand's hernia and the indications for subsequent surgical treatment. There are several factors that dictate appropriate surgical treatment which include appendix condition, characteristics of the hernia, the patient's comorbidities, and other circumstances not well identified due to the lack of research available for this rare disease. Due to the rarity of this disease and a lack of randomized controlled studies there are no evidence-based standardized approaches for dealing with this unique entity. Furthermore, controversy remains regarding whether to perform an appendectomy for a normal appearing appendix or whether mesh should be used for the hernia repair if an appendectomy is performed. Without more research, surgeons may make sub-optimal decisions, which potentially increases patient morbidity.

We present a case report of this rare entity known as an Amyand's hernia that presented as an incarcerated hernia that was diagnosed intraoperatively with an inflamed non-perforated appendix, known as type 2 Amyand's hernia that was subsequently treated with an appendectomy and tension free repair with mesh and we review current literature regarding the management. This case has been reported in line with the SCARE criteria [3].

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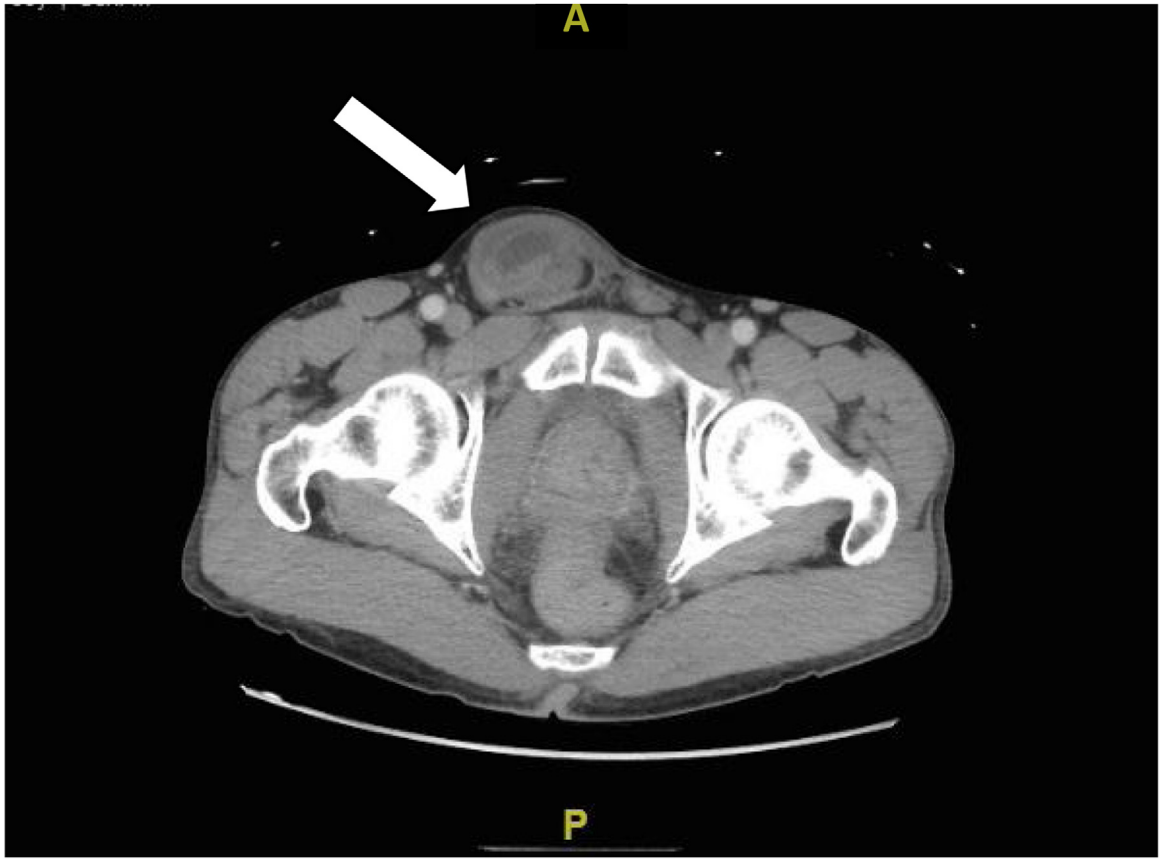

Fig. 1. CT showing an incarcerated right inguinal hernia with small bowel in the right groin/hernia sac.

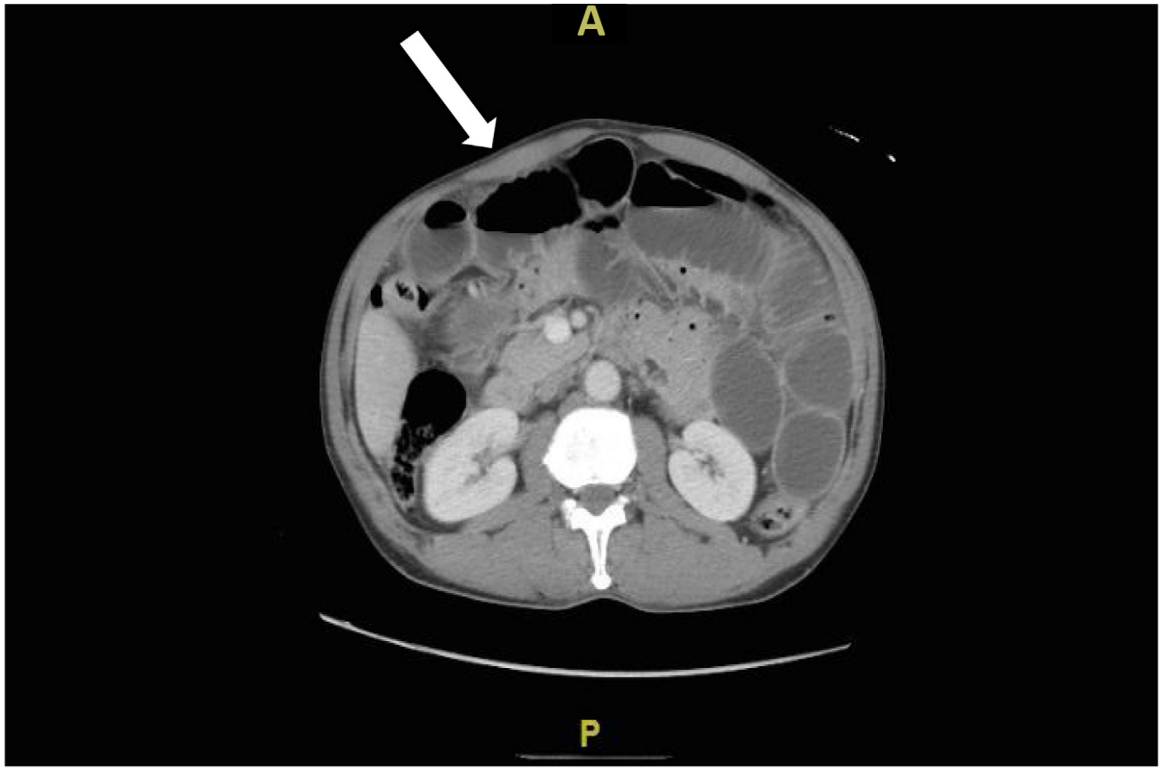

Fig. 2. CT showing small bowel obstruction caused by the incarcerated right inguinal hernia, with fluid filled and dilated loops of small bowel.