

Amyand: A Forgotten Surgeon And Hernia. Case Presentation And Literature Review.

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Citation

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Abstract

The presence of the appendix within inguinal hernia sac is termed Amyand's hernia. It was first described by Amyand in 1735. We report a case of Amyand's hernia in a 51 years old man mimicking torsion of undescended testis, reviewing the literature and highlighting the great contribution of this genius surgeon to surgical practice.

INTRODUCTION

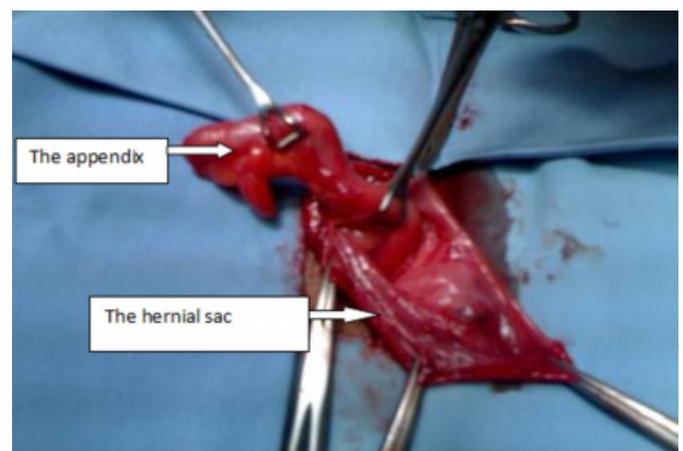
Amyand was Sergeant Surgeon to King George II. He was the first surgeon to have successfully performed appendectomy in 1735. In spite of his great contribution to surgery, he was ignored in the medical history for long time. Amyand's hernia can be a challenge for the surgeon. Pre-operative diagnosis of hernial appendicitis is very difficult and most of the reported cases were diagnosed preoperatively as incarcerated hernia. We report a case of Amyand's hernia simulated testicular torsion diagnosed intra operatively

CASE REPORT

A 51 year male, presented to the emergency department of KFMC Riyadh with painful right inguinal swelling. He had this swelling off and on for two years but it suddenly became painful and irreducible for 12 hours before his presentation. He was a known asthmatic and hypertensive on treatment. There was no history of constipation, abdominal distension, vomiting or fever. Examination revealed tender irreducible swelling in the right inguinal region with negative cough impulse. The right scrotum was underdeveloped and empty. Diagnosis of incarcerated right inguinal hernia or torsion of right undescended testis was made on clinical findings. After obtaining informed consent for orchidectomy, the patient was taken for surgical exploration. The inguinal canal was explored under general anesthesia. The hernia sac was found, containing a congested appendix without gross contamination (Figure 1)

Figure 1

Figure 1: Showing the inflamed appendix within the hernial sac.



The testis was not found within the canal. The appendix was removed. Laparoscopic exploration of the abdominal cavity revealed small right intra abdominal testis lying at the pelvic prim medial to the right iliac vessels, covered by small bowel. Laparoscopic right orchidectomy was done (figure 2, 3 and 4). The posterior wall of the inguinal canal was reinforced with a synthetic mesh. Post operatively the patient received a course of antibiotic. The postoperative course was uneventful and he was discharged home on the 3rd post operative day.

Figure 2

Figure 2: showing small right intra abdominal testis lying at the pelvic prim medial to the right iliac vessels.



Figure 3

Figure 3: the right testis after ligation and division of its cord attachment.

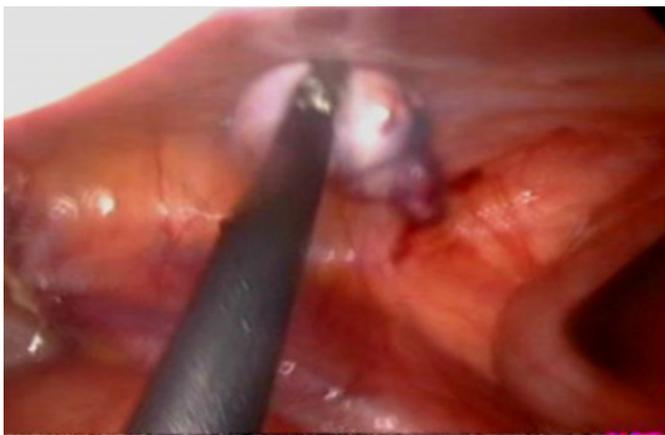
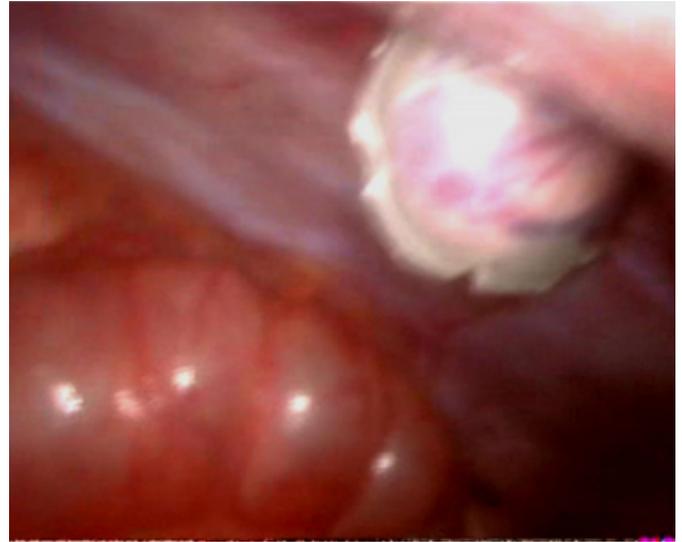


Figure 4

Figure 4: Removal of the testis in an endopouch through the abdominal wall.



DISCUSSION

Claudius Amyand was the son of George, a Huguenot family from Mornac, in Xaitonge, France and was naturalised at Westminster on 9th. September 1698. He became surgeon at St George's Hospital in London, served with the army in Flanders during the War of the Spanish succession and was appointed Sergeant-Surgeon (Surgeon in Ordinary) to King George I in 1715, a post which he subsequently held under King George II. He was Fellow of the Royal Society, first Principal Surgeon to the Westminster Hospital London, founder and first Principal Surgeon to St George's Hospital London.

Although the finding of an appendix within an inguinal hernia is more common than of a Meckel's diverticulum (Littre's hernia) it is surprising that Claudius Amyand, who first described, the presence of the appendix within an inguinal hernia has not enjoyed the same fate of eponymous immortality as Littre(1)

Furthermore various surgeons at various times received the credit for first appendectomy, Amyand's name was totally ignored although he had successfully performed the first appendectomy in 1735, more than a hundred years before those surgeons who were credited with the honor of the first appendectomy.

Amyand successful performed the first appendectomy in 1735, on the patient Haval Handerson, an 11-year-old boy with an inguinal hernia. During the half-hour surgery; he found the appendix in the hernial sac with a fistula tract from

the perforated appendix (3, 1, 4, 5, and 6). The case was reported in the "Philosophical Transactions of the Royal Society" in 1736 where he commented "it is easy to conceive that this operation was as painful to the patient as laborious to me". The boy recovered, but the hernia recurred (7).

Until the 1990s, the eponym (Amyand's hernia) was not popularly used, nor the great surgeon given due credit. It is only, thanks to meticulous research by Deaver, that Amyand's important contribution to surgery got known to all (1-2).

No doubt that Amyand was a great surgeon and he should be recognized for his great contribution to surgery, he deserves to be described as (the first surgeon to do appendectomy. Claudius Amyand was not a man of genius, but one of solid worth who merits a nod of recognition from medical history, too long denied to him) (8).

Thank to his descendants, who lent his family name to a house, a road (Amyand Park Road), a row of cottages (Amyand Cottages) and a Baptist Chapel (Amyand Park Chapel) in Twickenham.

Inguinal hernia is a common surgical problem. Inguinal hernia sacs may contain a usual structure as small bowel (Enterocoele), omentum (Omentocoele). Unusual contents may be encountered within the hernia sac such as the bladder (9), a Meckel's diverticulum (Littre's hernia), or a portion of the circumference of the intestine (Richter's hernia). The presence of the appendix within inguinal hernia sac is termed Amyand's hernia (1, 10, & 11) and was first described by Amyand in 1736.

An uninfamed appendix within an inguinal hernia is estimated to be found in approximately 1% of adult inguinal hernia repairs (12). The presentation of perforated appendicitis within an incarcerated inguinal hernia is even less common, occurring in approximately 0.13% of all cases of acute appendicitis. (13).

Most of the published cases have been reported as appendicitis incarcerated in a hernia. It is difficult to determine whether a primary visceral inflammation, which could be referred to as appendicitis, is the pathological mechanism, or if the primary event is strangulation of the herniated appendix, leading subsequently to ischemic necrosis and secondary inflammation (14).

Most of the cases occur on the right side because of the

normal anatomical position of appendix. In addition, right-sided inguinal hernia is more common. Left-sided Amyand's hernia can be associated with situs inversus, intestinal malrotation or mobile caecum (15). An extensive literature search revealed three reported cases of left sided Amyand's hernia (16).

The association of inguinal hernia and undescending testis is well known, especially the right sided congenital hernia. However the association of Amyand's hernia with undescending testis is rare.

Acute appendicitis within inguinal hernia, in the presence of undescended testis can mimic torsion testis. Though, this is seen in infants, (17, and 18), presentation in adults is very rare. Girish et al reported a case of Amyand's hernia mimicking torsion of left testis in a 23 years old male (19).

Amyand's hernia can be a challenge for the surgeon (20). Pre-operative diagnosis of hernial appendicitis is very difficult. The difficulty in diagnosing hernial appendicitis preoperatively is reflected by the fact that only one case has been reported with correct diagnosed preoperatively, in 60 cases of Amyand's hernias from 1959 to 1999 (21). The medical history and the physical examination usually point to incarcerated hernia with localized peritonitis (5). Diagnosis of the Amyand's hernia is usually made intraoperatively (20).

Preoperative computed tomography (CT) examinations revealed the previously unsuspected diagnosis of Amyand's hernia in some reports (11). However, CT is not routinely used in such cases. Bruno et al diagnosed Amyand's hernia preoperative in a 59 years old man by inguinal sonography, subsequent confirmed by CT. (22)

The treatment for hernial appendicitis includes appendectomy with primary hernia repair using the same incision (23). Mesh should not be used in the repair of contaminated abdominal wall defects because the prosthetic material can increase the inflammatory response and result in wound infection and a possible appendiceal stump fistula. (16).

Laparoscopic treatment has also been reported as well (24). The majority of the authors agree that a normal appendix within the hernia sac does not require appendectomy, and that every effort should be made to preserve the organ found in the hernia sac, for an uneventful postoperative course (25,26).

SUMMARY

The association of Amyand's hernia with undescending testis is rare. Though, this is seen in infants, presentation in adults is extremely rare. Amyand's hernia, in presence of undescended testis can mimic testicular torsion. Diagnosis depends on high index of clinical suspicion and all patients with suspected diagnosis should be consented for possibility of orchidectomy.

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