

AMYAND'S HERNIA- A RARE CASE REPORT

Preetham Raj G., Yogesh Kadam* and Akshatha H Bhat

ESIC Medical College and PGIMSR Rajajinagar, Bangalore Karnataka, India

ARTICLE INFO

Article History:

Received 19th November, 2017

Received in revised form 13th
December, 2017

Accepted 3rd January, 2018

Published online 28th February, 2018

Key words:

Amyand's hernia Inguinal hernia

ABSTRACT

Amyand's hernia is an extremely rare condition in which the inguinal hernia sac contains the vermiform appendix. It is most commonly found intra-operatively during a right-sided inguinal hernia repair. This unusual situation is estimated to occur in approximately one percent of adult inguinal hernia cases [1]. Claudius amyand (1660-1740) a french surgeon performed successful appendicectomy in 1735 in a 11-year old boy having inguinal hernia with appendix as its content. The term amyand's hernia is being used variously to refer to occurrence of an inflamed appendix within an inguinal hernia, a perforated appendix within an inguinal hernia or a non-inflamed appendix in an irreducible hernia. Till date, less than 20 cases have been reported in english literature. We describe a case of 80yr old male with right sided complete inguinal hernia with appendix as the content.

Copyright © 2018 Preetham Raj G., Yogesh Kadam and Akshatha H Bhat. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Case Report

A 80 year male presented with swelling in right inguino-scrotal region since 1 month with history of fever and irreducibility of swelling associated with pain since 7 days. He denied any changes in bowel habits or history of intestinal obstruction. On physical examination vitals were stable. A pyriform shaped swelling of size 14 x 10 cm over right inguino-scrotal region reaching upto bottom of the scrotum (figure 1), the lump was non tender and irreducible, both testis were palpable. Routine investigations were within normal limits, ultrasound scan findings of bowel in the sac with a cord like structure.

Patient was taken for emergency surgery under spinal anaesthesia. Inguinal canal was opened with skin crease incision, cremasteric box explored and hernial sac identified with spermatic cord. The hernia sac lateral to the inferior epigastric pedicle was dissected away from the spermatic cord to the deep inguinal ring. Sac was separated from cord, after opening sac normal appendix with terminal ileum, caecum and omentum was found as content with adhesions to sac wall (figure 2&3). Adhesions were released and contents reduced, sac ligated and transfixed and tension free polypropylene mesh repair done. The patient was discharged after 2 days and postoperative period uneventful. He returned to clinic 1 month later with no complications and no recurrence of his hernias.

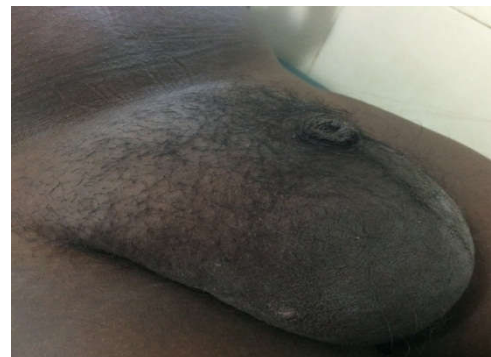


Figure 1 complete inguinal hernia



Figure 2 hernia sac opened containing cecum, and appendix

*Corresponding author: **Yogesh Kadam**

ESIC Medical College and PGIMSR Rajajinagar, Bangalore Karnataka, India

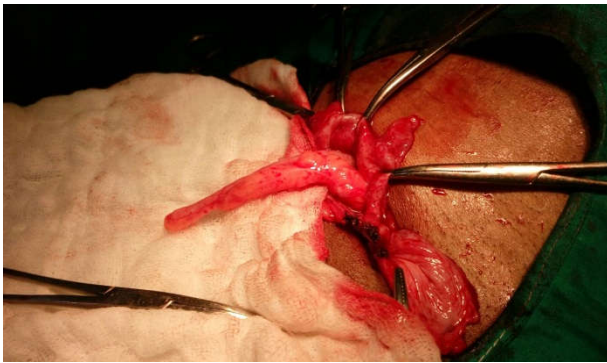


Figure 3 Vermiform Appendix

DISCUSSION

Amyand's hernia is defined as an un-inflamed appendix in an inguinal hernia. Claudius Amyand was a French born English Surgeon who in 1735 successfully performed and recorded the repair of an inguinal hernia in an 11-year-old patient. The patient was found to have the vermiform appendix in his hernia sac. Since then, the presence of the vermiform appendix in a hernia sac has been deemed an 'Amyand's hernia' [2]. The incidence of an Amyand's Hernia is 1% of inguinal hernias occurring most often in male patients. They are most commonly located on the right side due to the location of the appendix. The appendix has also been found in obturator, umbilical and incisional hernias [1]. Of inguinal hernias, only 0.1% has an inflamed appendix [3 – 6]. This is a result of either primary inflammation of the appendix causing edema of the internal inguinal ring or incarceration of a normal appendix by abdominal wall musculature [1].

As in our patient, most Amyand's hernias are discovered intra-operatively. However, pre-operative diagnosis can be made using CT with oral contrast, in patients with suspicion of appendicitis. When scrotal involvement is suspected ultrasound is a low cost alternative without radiation [1]. Losanoff and Basson created a classification scale to identify and treat Amyand's hernias (Table 1) [4, 5]. A Type 1 hernia has a normal appendix in an inguinal hernia, which is managed with a reduction and mesh repair. Types 2–4 have acute appendicitis within an inguinal hernia sac. Type 2 has an inflamed non-perforated appendix. Type 3 has a perforated appendix and type 4 is complicated with intra-abdominal pathology.

Type 2–4 hernias are managed with appendectomy and primary repair (without mesh). In addition, to the primary repair and appendectomy, type 3 includes a laparotomy for abdominal irrigation, possible orchiectomy or colectomy and type 4 includes investigation of pathology [4, 5]. Our patient had a Type 1 Amyand's hernia and underwent a mesh repair without an appendectomy. In the pediatric population, however, a prophylactic appendectomy would have been performed (without mesh repair), because children and adolescents have a higher risk of acquiring acute appendicitis [4, 5].

In summary, Amyand's hernia is a rare occurrence, but offers variety in their presentations and managements. Our case of a Type 1 Amyand's hernia was repaired with mesh and did not require an appendectomy.

Table 1 Losanoff and Basson classification of Amyand's hernia [4–6] Types of Amyand's hernia with their respective management

Classification	Description	Management
Type 1	Normal appendix in an inguinal hernia	Hernia reduction, mesh placement
Type 2	Acute appendicitis in an inguinal hernia with no abdominal sepsis	Appendectomy, primary no prosthetic hernia repair
Type 3	Acute appendicitis in an inguinal hernia with abdominal and abdominal wall sepsis	Laparotomy, appendectomy, and primary no prosthetic hernia repair
Type 4	Acute appendicitis in an inguinal hernia with abdominal concomitant pathology	Same as type 3 plus management of concomitant disease

References

1. Amyand C. Of an inguinal rupture, with a pin in the appendix caeci, incrusted with stone; and some observations on wounds in the guts. *Philos Trans R Soc Lond* 1736; 39:329-36.
2. Burgess PL, Brockmeyer JR, Johnson EK. Amyand hernia repaired with Bio-A: a case report and review. *J Sur Educ* 2011; 68:62-6.
3. Ballas K, Kontoulis T, Skouras C, Triantafyllou A, Symeonidis N, Pavlidis T, et al. Unusual findings in inguinal hernia surgery: report of 6 rare cases. *Hippokratia* 2009; 13:169-71.
4. Losanoff JE, Basson MD. Amyand hernia: what lies beneath—a proposed classification scheme to determine management. *Am Sur* 2007; 73: 1288-90.
5. Losanoff JE, Basson MD. Amyand hernia: a classification to improve management. *Hernia* 2008; 12:325-6.
6. Psarras K, Miltiadis L, Baltatzis M, Pavlidis E, Tsitlakidis A, Symeonidis N, et al. Amyand's hernia—a vermiform appendix presenting in an inguinal hernia: a case series. *J Med Case Rep* 2011; 5:463.
7. Sharma H, et al. Amyand's hernia: a report of 18 consecutive patients over a 15-year period. *Hernia* 2007; 11:31-35.
8. Logan MT, Nottingham JM. Amyand's hernia: a case report of an incarcerated and perforated appendix within an inguinal hernia and review of the literature. *Am Surg* 2001; 67:628-629.
9. Lyass S, Kim A, Bauer J. Perforated appendicitis within an inguinal hernia: case report and review of the literature. *Am J Gastroenterol* 1997; 92:700-702.
10. Vermillion JM, Abernathy SW, Snyder SK. Laparoscopic reduction of Amyand's hernia. *Hernia* 1999; 3:159-160.
11. Luchs JS, Halpern D, Katz DS. Amyand's hernia: prospective CT diagnosis. *J Comput Tomogr* 2000; 24:884-886.
12. Ottaviani M, Maglio MN, Papa F, Zitarelli V, Alario G, Di Marzo A. Acute gangrenous appendicitis in incarcerated inguinal hernia. A case report. *Minerva Chir* 1997; 52:831-833.