



AMYAND'S HERNIA; A CASE REPORT

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ABSTRACT... Introduction: An appendix in an inguinal hernial sac is called as Amyand's Hernia. The appendix may or may not be inflamed. It is a rare occurrence in surgical practice. **Case Presentation:** A 23 years old male presented with the clinical diagnosis of strangulated right inguinal hernia. On surgical exploration acutely inflamed appendix was found in the hernial sac. Appendicectomy and hernia repair was carried out. **Conclusion:** Inguinal hernia is one of the most common general surgical procedure. Unexpected hernial sac contents like an inflamed appendix may be encountered and dealt accordingly.

Key words: Inguinal hernia, Amyand's hernia, acute appendicitis

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INTRODUCTION

Vermiform appendix in a hernial sac is called as Amyand's Hernia. The appendix may or may not be inflamed. It is a very rare condition and only few cases have been reported in literature. Claudius Amyand was the first person to describe this condition in 1735.

CASE PRESENTATION

A young male 23 years old presented to the emergency department with complaints of right groin swelling, pain and redness associated with nausea and anorexia. On further inquiring about the swelling the patient told that the swelling had been present for the last 2 months, but disappeared on lying down and gave him occasional discomfort. He was awaiting surgery. Now for the last 1 day it has become irreducible, red and painful. Pain had been increasing since the onset and was not relieved by taking Paracetamol. The patient was anorexic and nauseous but had no complaints of vomiting, diarrhoea, constipation or dysuria.

On examination, vitals were Pulse: 92 beats/

min, BP: 114/72 mmHg, Temp: 38.1°C, RR: 16 resp/min, O₂ Sat: 100% RA. Examination of the swelling revealed a 7 X 8 cm lump present in the right inguinal region at the deep inguinal ring with overlying skin red. There was no cough impulse and the swelling was tender and irreducible. Examination of the genitalia revealed no abnormality. Abdominal examination revealed a soft non tender abdomen with audible bowel sounds. Rest of the systemic examination was unremarkable. A provisional Diagnosis of Strangulated Right Inguinal Hernia was made and emergency surgery was planned after obtaining high risk consent.

Baseline bloods revealed a normal Hb but a high white cell count (13200/mm³). CRP was also raised (49). Plain abdominal x-ray showed no air fluid levels.

Surgical exploration was performed under general anaesthesia. Ceftriaxone 1g and Metronidazole 500mg were administered at induction. Inguinal canal was opened through

a transverse skin crease incision. Cremesteric muscles were divided and on opening the hernial sac, about 10 ml of reactionary fluid was drained and an inflamed appendix was found (Figure 1). Appendicectomy, high ligation of the hernial sac and Darn repair was carried out. The wound was closed in layers without a drain. Two further doses of antibiotics (Ceftriaxone 1g and Metronidazole 500mg) were given in the post operative period. Paracetamol 1g PO QDS and Diclofenac 100mg PR was used for post operative analgesia. Post operative course was uneventful and the patient was discharged on the 2nd post operative day.



Figure-1. Intraoperative picture of acutely inflamed appendix in inguinal hernia sac

Histology of the appendix turned out to be acute appendicitis. At 2 and 6 week follow up no surgical site infection or any other problem was encountered.

DISCUSSION

The presence of vermiform appendix in an inguinal hernial sac is called as Amyand's Hernia; regardless of the fact whether the appendix is inflamed or not. This has been named after Claudius Amyand, a surgeon working at St George's and Westminster Hospital London, who

performed the first successful Appendicectomy on an 11 year old boy in 1735 who had presented with perforated appendix in inguinal hernia. This case was published in the Philosophical Transactions of the Royal Society of London.¹

Appendicectomy and inguinal hernia repair are the two most common operations in the general surgical practise. The presence of non-inflamed appendix in an inguinal hernia occurs in about 1% of the inguinal hernia repairs whereas acute appendicitis in an inguinal hernia accounts for 0.1% of all the cases.^{2,3,4} This condition is rarely diagnosed preoperatively except in cases where a preoperative CT scan has been done. A differential diagnosis of Strangulated omentocele, Richter's Hernia, Haemorrhagic testicular tumour, acute hydrocele, inguinal lymphadenitis and Epididymitis should always be in mind. The surgical procedure carried out is dictated by the fact whether the appendix within the hernial sac is inflamed or not. There is a consensus on the fact that if the appendix is inflamed then mesh repair should be avoided due to the risk of post-operative infection; Bassini, Shouldice tissue repairs are then preferable.^{5,6,7} If a normal appendix is found within the hernial sac, many surgeons do not favour prophylactic Appendicectomy in such cases.^{2,8}

Losanoff and Basson devised a classification of Amyand's Hernia and also proposed the surgical management of each type (Table I).^{3,6} According to this classification presence of a normal appendix in an inguinal hernia is Type 1 which may be dealt with mesh repair and appendectomy may be performed in young patients. Type 2 is acute appendicitis in an inguinal hernia with no abdominal sepsis and it may be dealt by appendectomy and primary repair of the hernia without mesh. While in Type 3 (acute appendicitis with peritonitis) laparotomy, appendectomy and hernia repair without mesh be carried out. Acute appendicitis in inguinal hernia related or unrelated to other abdominal pathology is classified as type 4 and should be treated accordingly depending upon the abdominal pathology.

Classification	Description	Surgical Management
Type 1	Normal appendix within an inguinal hernia	Hernia reduction, mesh repair, appendectomy in young patients
Type 2	Acute appendicitis within an inguinal hernia, no abdominal sepsis	Appendectomy through hernia, primary endogenous repair of hernia, no mesh
Type 3	Acute appendicitis within an inguinal hernia, abdominal wall or peritoneal sepsis	Laparotomy, appendectomy, primary repair of hernia, no mesh
Type 4	Acute appendicitis within an inguinal hernia, related or unrelated abdominal pathology	Manage as type 1 to 3 hernia, investigate or treat second pathology as appropriate

Table-I. Classification of Amyand's hernia by Losanoff and Basson^{3,6}

Our case was Type 2 Amyand's Hernia according to the classification by Losanoff and Basson. Appendectomy and primary repair of the hernia was carried out without the use of mesh. Postoperative recovery was uneventful and at 2 and 6 week follow up no surgical site infection or any other problem was encountered.

CONCLUSION

Amyand's hernia is a rare clinical entity which is mostly diagnosed per operatively. An individualized approach has to be carried out in each case.

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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 London 1736, 39:329-336.
2. D'Alia C, Lo Schiavo MG, Tonante A, Taranto F, Gagliano E, Bonanno L, Di Giuseppe G, Pagano D, Sturniolo G: **Amyand's Hernia: case report and review of literature.** Hernia 2003, 7(2):89-91.
3. Losanoff JE, Basson Md: **Amyand Hernia: what lies beneath - a proposed classification scheme to determine management.** Am Surg 2007, 73(12):1288-1290.
4. Milacchi S, Allins AD: **Amyand's Hernia: history, imaging and management.** Hernia 2008, 12(3):321-322.
5. Lavaditi E, Mavridis G, Christopoulos-Geroulanos G: **Amyand's hernia in premature neonates: report of two cases.** Hernia 2007, 11(6):547-549.
6. Losanoff JE, Basson MD: **Amyand Hernia: a classification to improve management.** Hernia 2008, 12(3):325-326.
7. Sharma H, Gupta A, Shekhawat NS, Memon B, Memon MA: **Amyand's hernia: a report of 18 consecutive patients over a 15-year period.** Hernia 2007, 11(1):31-35.
8. Salemis NS, Nisotakis K, Nazos K, Savrinou P, Tsohataridis E: **Perforated appendix and periappendicular abscess within an inguinal hernia.** Hernia 2006, 10(6):528-530.