

## Amyand's Hernia - A Case Report and Discussion

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### Abstract

We usually diagnose inguinal hernia on clinical presentation and Ultrasonography.

Intraoperatively, appendix may be found as a content of the hernial sac, known as Amyand's hernia.

Since it is not a very common condition, there are no clear guidelines for the management of Amyand's hernia. These guidelines are needed keeping in mind that the appendix may be inflamed needing appendectomy besides hernia repair. Secondly, this area where hernia repair has to take place and mesh has to be placed may be contaminated due to the presence of inflamed appendix. Thirdly, there may be adhesions due to recurrent or chronic inflammation of the appendix in the hernial sac. Last but not the least, is the possibility of presence of terminal ileum and caecum along with the appendix.

The incidence of appendix being present in a hernia sac is 1%. The incidence of appendicitis in these appendices is 0.15%. If appendicitis is found in these situations, it is treated by appendectomy and hernia repair. Sometimes we can detect an inflamed appendix in the sac but the most effective diagnosis comes from a computerized tomography.

### CASE PRESENTED

We report here about a 32-year-old male patient with an irreducible scrotal swelling. The swelling had been there for 10 months, initially reducible, but later became irreducible for the last two months. There was associated mild to moderate pain, described by the patient as an ache or dragging sensation. Preoperative US suggested Omentocoele.

The patient was taken up for open hernia repair, although 98% of inguinal hernia repairs by our team are done laparoscopically. We decided for open repair on account of huge inguinoscrotal irreducible hernia, which appeared to have dense adhesions to the scrotal part of the complete sac which may not have been easy to reduce during a laparoscopic surgery.

Surgery was done with a 6 cm incision in the left groin parallel to the inguinal ligament, overlying the proposed region of external ring. The Terminal ileum, caecum, omentum and appendix was seen in the hernia sac. These abdominal contents descended down in a complete sac and were adherent upto the testis in the scrotum.

As the appendix was not inflamed, appendectomy was not done. Adhesions were dealt with using cold scissors and the terminal ileum, caecum and appendix were reduced and repositioned in the abdomen. The hernia repair was done using a mesh by carrying out a Bassini's repair.

### DISCUSSION

Ileum is a mobile structure. Appendix can be long, caecum can be partially or totally extraperitoneal with retrocaecal appendix, which is the most common location of the appendix. The risk of appendix inflammation in a hernial sac has been found to be higher than when the appendix is present in the usual position. The reasons proposed for this increased incidence of appendicitis in a Amyand's hernia are: (a) Poor blood circulation of the appendix due to pressure (b) Contracting abdominal muscles, causing reduced lumen can result in bacterial overgrowth and thereby inflammation.

But this is not always so. Most appendices in Amyand's hernia are normally like in our case.

Appendicitis is an acute emergency, and so is the Amyand hernia with inflamed appendix.

Differential diagnosis of acute scrotum like bleeding, testicular tumor, acute hydrocele, orchitis, epididymitis or testicular torsion should be remembered because preoperative diagnosis will change the course of management.

### DISCUSSION CONTINUED

In these patients, a history of fever or leucocytosis may not be useful. USG May not be enough for evaluations. In our case too, Ultrasound does not give enough information to search a diagnosis of Amyand's hernia. So when there is a doubt, CT or MRI may be beneficial. In Amyand's hernia, Sometimes with inflamed appendix, appendectomy alone may not be sufficient and ileo caecal resection may be needed. It may also require drainage of Abscess from the scrotum or abdomen.

The appendix may be complicated with abscess or perforation. A mesh repair is not done in a contaminated area like this, and only a primary repair is undertaken. Surgeons do not consider appendectomy as an absolute contraindication to mesh placement. Adequate antibiotics, apart from keeping the contamination to minimum, is mandatory.

We do not recommend Ultrasound of an inguinal hernia as a routine, though it is often asked by the health insurance. If no other disorder is suspected, USG increases the cost and gives no other information. An appendix which is not inflamed is not picked up on us in most cases.

### DISCUSSION CONTINUED

The diagnosis of a Amyand's hernia is usually made intraoperatively, and incidental appendectomy continues to be a challenge for surgeons.

In our patient, appendix was normal. He did not perform appendectomy to avoid mesh being infected.

Terminal ileum and caecum were adherent to the sac in the scrotum and to the testis.

When in doubt, preoperative diagnosis using CT or MRI to make a preoperative diagnosis is very helpful to determine the choice of treatment.

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