

Case Report

Right Amyand's hernia: bilateral indirect uncomplicated inguinal hernia with appendix as content on right side

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ABSTRACT

Amyand's hernia is a rare finding of the appendix inside an inguinal hernia sac. Most cases are found intra-operatively during inguinal hernia repair. It is extremely rare and occurs in 1 percent of all inguinal hernias with an estimated rate of 0.07-0.13 percent having associated acute appendicitis. A 60 year old male presented to the hospital with chief complaint of swelling in bilateral inguinal region more on the right side since 6 months associated with chronic cough since 1 month and difficulty in passing urine since 6 months. Patient was taken up for elective right side hernioplasty after taking physicians and pulmonologist opinion for fitness for surgery and urologist opinion for grade II prostatomegaly. Intra operatively indirect hernia sac medial to inferior epigastric artery with appendix as content and hydrocele around 15 ml. The contents were reduced back inside the peritoneal cavity and Lichtenstein tension free hernioplasty was performed. Amyand's hernia widely varies in its presentation, can occur at any age and typically presents in men. The surgical management of Amyand's hernia includes appendectomy with repair of inguinal hernia through inguinal incision. Amyand's hernia being an unusual presentation, helps the surgeons to be prepared for such circumstances and do appropriate management.

Keywords: Amyand's hernia, Inguinal hernia, Appendix

INTRODUCTION

Amyand's hernia is a rare finding of the appendix inside an inguinal hernia sac. Most cases are found intra-operatively during inguinal hernia repair. Amyand's hernia was first described in 1735 by Amyand, an English surgeon.¹ It is extremely rare and occurs in 1 percent of all inguinal hernias with an estimated rate of 0.07-0.13 percent having associated acute appendicitis.

CASE REPORT

A 60 year old male presented to the hospital with chief complaint of swelling in bilateral inguinal region more on the right side since 6 months associated with chronic

cough since 1 month and difficulty in passing urine since 6 months.

On clinical examination abdomen was soft with mild tenderness in suprapubic region. In inspection, right inguinal region shows a globular swelling of size 5×4 cm, extending up to the root of the scrotum, with expansile cough impulse. Skin overlying seems to be normal. On palpation, it was soft in consistency, reducible (with gurgling sound), cough impulse positive. Finger invagination test impulse was felt over the tip of the finger. In Ziemann's test, impulse was felt on the index finger.

In inspection, left inguinal region shows a globular swelling of size 3×2 cm, not extending up to the root of the scrotum, with expansile cough impulse. Skin overlying seems to be normal. On palpation, it was soft in consistency, reducible (with gurgling sound), cough impulse positive. Finger invagination test impulse was felt over the tip of the finger. In Zieman's test, impulse felt on the index finger.

On per rectal examination, grade II prostatomegaly was noted. All routine blood investigations were done and was found to be within normal limits.

USG abdomen and pelvis shows reducible right direct inguinal hernia with right sided hydrocele. Cystitis with significant post void residue. Pre void: 280cc; post void: 129cc.



Figure 1: Bilateral indirect inguinal herniae pre operative photo.

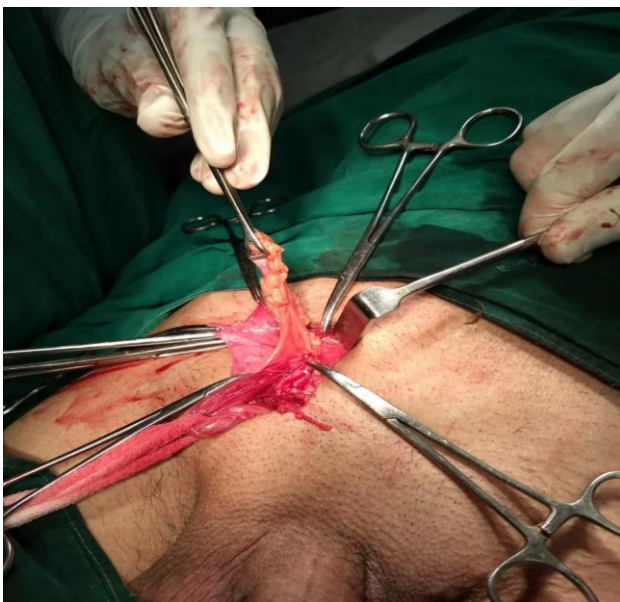


Figure 2: Intraoperative photo of right inguinal herniae with appendix as content.

Treatment

Patient was taken up for elective right side hernioplasty after taking physicians and pulmonologist opinion for

fitness for surgery and urologist opinion for grade II prostatomegaly. Intra operatively indirect hernia sac medial to inferior epigastric artery with appendix as content and hydrocele around 15 ml. The contents were reduced back inside the peritoneal cavity and Lichenstein tension free hernioplasty was performed.

DISCUSSION

Amyand's hernia varies in its presentation, can occur at any age and typically presents in men. The surgical management of Amyand's hernia includes appendectomy with repair of inguinal hernia through inguinal incision. Amyand's hernia was first described by Claudius Amyand (1660-1740), an English surgeon, who performed the first reported appendectomy for inflamed appendix encountered during herniotomy on an 11 year-old boy in 1735 at St George's Hospital. The case was published in Philosophical Transactions of the Royal Society of London.¹

The incidence of Amyand's hernia is between 0.4% and 0.6%.²⁻⁴ The association of appendicitis in amyand's hernia is even rarer 0.1%.³ In paediatrics, the incidence is about 3 times more common.⁵ Most of the cases are right-sided, which can be explained with the normal anatomy of the appendix. Also, right inguinal hernias are more common than the left ones.² As in our case, Amyand's hernia was noted on the right side and can be explained as per normal anatomy. Left-sided Amyand's hernias are rare. The possible explanations for left-sided Amyand's herniae is situs inversus, malrotation, mobile caecum and excessively long appendix.⁶

The clinical picture of Amyand's hernia is that of inguinal hernia and varies depending on the inflammatory condition of the appendix.³ According to Sharma et al, 83% of cases present with painful inguino-scrotal mass.⁷ The majority of cases are misdiagnosed as incarcerated or strangulated inguinal hernia and the diagnosis is revealed on table. Pre-operative diagnosis can be made using ultrasound and CT scan.^{9,10} Inguinal hernia is a clinical diagnosis and these investigations are not done routinely. Only a few cases have been reported where diagnosis was made pre-operatively.^{11,12} Losanoff and Basson proposed a classification scheme to determine the surgical management of Amyand's hernia, depending on the status of the appendix (Table 1).¹³⁻¹⁵

Table 1: Losanoff Basson classification.

Type	Losanoff Basson classification
1	Healthy appendix in hernial SAC
2	Amyand hernia with sepsis confined to scrotum
3	Amyand hernia with sepsis spread beyond hernial SAC
4	Amyand hernia with serious complicating pathology outside the hernial SAC

Type 1 Amyand's hernia contains normal appendix, managed by mesh repair without appendectomy. In types 2 to 4 hernias, appendectomy is routinely performed.^{14,15} In addition to primary hernia repair, type 3 requires a laparotomy and abdominal irrigation and type 4 indicates further investigations of associated pathology.¹⁶ Mesh repair should be avoided in the presence of appendicitis due to higher risk of mesh infection and recurrence.

CONCLUSION

Amyand's hernia is a rare occurrence in inguinal hernia and even rarer on the left side. Our patient met the criteria of Losanoff's type 1 Amyand's hernia with no features of appendicitis or obstruction. The diagnosis was made intra-operatively and was managed by reduction of contents and mesh repair of the inguinal hernia. Awareness of such an unusual condition will help surgeons to be prepared for the appropriate management for a common procedure such as inguinal hernia repair.

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