



# **Bilateral Obstructed Inguinal Hernia with Left Amyand'S Hernia: A Rare Case Report**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

## **Article Information**

DOI: 10.9734/IJMPCR/2023/v16i3337

## **Open Peer Review History:**

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/103518>

**Case Report**

**Received: 05/05/2023**

**Accepted: 17/07/2023**

**Published: 24/07/2023**

## **ABSTRACT**

Obstruction and strangulation are the most vicious complications of inguinal hernia that require prompt intervention in the form of surgical exploration. Presence of appendix in the inguinal hernia sac is a rare condition seen in less than 1% of all inguinal hernia cases. Usually this appendix is on right side, but its presence on the left side is extremely rare.

**Case Report:** A 70 year male patient with scrotal swelling and inability to pass stool and flatus presented to JNMCH emergency. Upon examination and evaluation a diagnosis of intestinal obstruction secondary of obstructed inguinal hernia was made. Further, upon exploration, a healthy appendix and caecum was seen in left sac whereas right sac contained small bowel, which was unhealthy.

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**Keywords:** Strangulation; emergency surgery; intestinal obstruction; bowel gangrene; malrotation.

## 1. INTRODUCTION

Hernia is defined as protrusion of abdominal viscera through its surrounding abdominal wall [1]. Although there are many types of hernia, inguinal hernia is the most common type. 75% of all the hernia occurs in inguinal region [1,2]. Majority patient usually do not have any associated complaints of hernia, a subset of patient can present with complications including obstructed inguinal hernia that results in strangulation of bowel. Strangulated inguinal hernia is one of the most common emergencies in surgery. It is a life threatening condition requiring urgent surgical intervention.

The sac commonly contains omentum & small bowel and uncommonly large bowel, appendix or bladder. Over the past several years, surgeons have identified presence of unusual organ in the sac. Presence of appendix in the hernia sac is called as Amyand's hernia. Claudius Amyand was the first surgeon to describe presence of appendix in inguinal hernia sac in a 11 year old boy [3].

We present a case of bilateral obstructed inguinal hernia with strangulation on right side along and Amyand's hernia on the left side.

## 2. CASE REPORT

A 70 year old male patient presented to JNMCH emergency with complaints of pain in abdomen, bilateral swelling over scrotum & inability to pass stool and flatus since 12 hours.

There is a history of left sided inguinal hernia repair done 2 years back. Patient again developed swelling in inguino-scrotal region since last 8 months on the right side, and since 4 months on left side. Patient is also a known case of chronic obstructive pulmonary disease for which he is on regular medications. His oxygen saturation on room air was 88%.

Upon physical examination, his abdomen was distended, mildly tender with diminished bowel sounds. A large swelling was present on both side of the scrotum which was tender and irreducible. A scar of previous surgery was seen in left inguinal region.

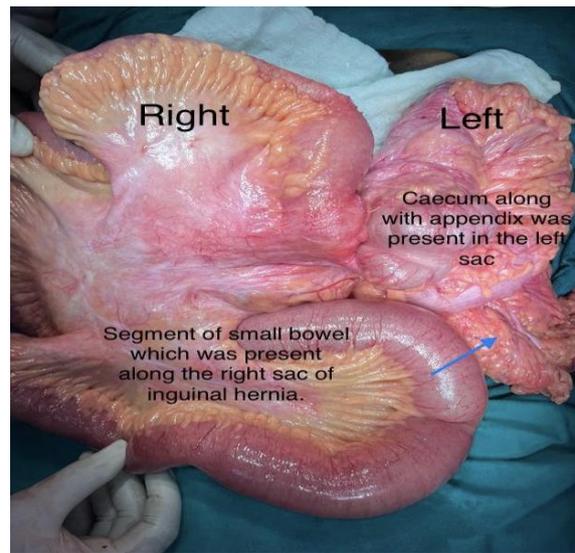
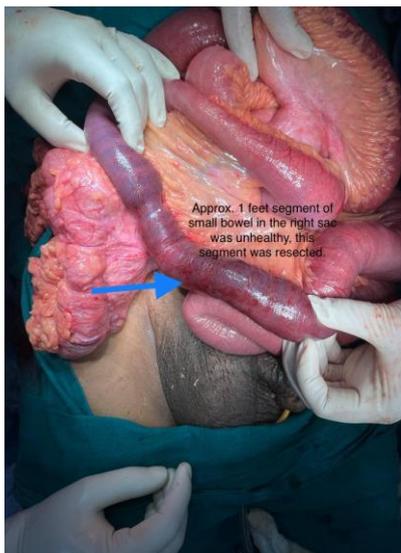
X-ray of the abdomen was done, which showed dilated small bowel loops suggestive of bowel obstruction. Findings were S/O Intestinal obstruction due to B/L obstructed inguinal hernia. Patient was then taken for urgent exploration.



**Fig. 1. Showed large scrotal swelling on both the sides**



**Fig. 2. Xray of abdomen showed dilated bowel loops**



**Fig. 3a and 3b. Operative findings, caecum and appendix (arrow) on left side of scrotum, gangrenous segment seen on right side**

### 3. OPERATIVE FINDINGS

Patient was operated under spinal anaesthesia. Inguinal incision was given on both the sides and later both the incisions were connected in

midline. After opening the superficial ring, sac was opened to check for viability on both the sides. Contents on the left side were viable. Left sac contained appendix and caecum. Appendix was not inflamed and was healthy. Flimsy

adhesions were removed and content reduced. Gangrenous segment of around 1 ft (6 feet distal to DJ) on the right side was resected & the segment was taken out as double barrel ileostomy.

Hernia defect was repaired by Bassini method & incision closed. Stoma was functional on Post-op Day 4. Patient developed respiratory complication and was kept on ventilator. Patient expired on post op day 12 due to respiratory complications.

#### 4. DISCUSSION

Inguinal hernia is a common condition in old age. Incarceration of hernia occurs in 10% cases which can result in intestinal obstruction, strangulation and bowel gangrene [4]. Strangulation and bowel gangrene is the most lethal complication of inguinal hernia. Any patient presenting with such symptoms mandates prompt surgical exploration.

Usually the sac contains small bowel and omentum. Presence of caecum and appendix in the sac is rarely seen. Despite having discovered 170 years ago, it remains relatively unknown. The incidence of appendix in inguinal hernia sac is just 1% whereas presence of inflamed appendix is less than 0.2% [3,5]. A Classification of Amyand's hernia proposed by Losanoff and Basson modified by Rikki is used [5]. Most of the cases of amyand's hernia are seen on right side as a consequence of normal anatomical position.

Left sided Amyand's hernia is very rare in world literature. Reported cases of presence of appendix in left side of inguinal hernia sac are usually associated with situs inverses, intestinal malrotation, a very long appendix or a mobile caecum [6]. Post operative contrast study could be done to diagnose the condition [5,7]. In our case, we could not do any contrast study. Also majority cases of Amyand's hernia have reported underlying appendicitis, some have also reported associated complication such as obstruction or strangulation. Perforated appendix may also mimic as intestinal perforation within the sac, thus making it very difficult to diagnose the condition pre-operatively. Thus it can be said that Amyand's hernia is an incidental finding.

Except for Type 1 Amyand's hernia, all the other cases require appendectomy, whereas type 1 can be managed by reduction of the content and hernia defect repair alone.

Intra-operatively presence of ischemic bowel segment warrants resection of same followed by repair of the defect. Use of mesh repair is avoided in such heavily contaminated cases to prevent any septic complications.

#### 5. CONCLUSION

Left sided Amyand's hernia is an extremely rare condition and whose preoperative diagnosis is very difficult to establish. Treatment depends on the mode of presentation. Obstructed inguinal hernia is a surgical emergency mandating prompt surgical exploration to prevent morbidity and mortality.

#### CONSENT

Written and informed consent was obtained from patient attendant for publication of this case report and accompanying images

#### ETHICAL APPROVAL

As per international standard or university standard, written ethical approval has been collected and preserved by the author.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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