CASE REPORT

A Rare Presentation of Obstructed Inguinal Hernia with Sac Containing Appendix and Loop of Ileum (Amyand's and Maydl's Hernia)

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Received: 16th May, 2026; Revised: 14th June, 2026; Accepted: 28th June, 2026; Available Online: 04th August, 2026

ABSTRACT

Background: Obstructed inguinal hernias are common surgical emergencies, but simultaneous presence of the appendix and a loop of ileum within the same hernial sac is exceptionally rare. The coexistence of Amyand's hernia (appendix within the sac) and Maydl's hernia (two loops of bowel forming a "W" configuration) is seldom reported.

Case Presentation: A 52-year-old male presented with irreducible right inguinal swelling and features of intestinal obstruction. Ultrasonography revealed an obstructed right inguinal hernia with decreased vascularity of the sac contents. Emergency surgery revealed the hernia sac containing the appendix and a loop of ileum, with gangrenous right testis due to compromised vascular supply. Right orchidectomy and Right Inguinal Herniorrhaphy were done. The postoperative period was uneventful.

Conclusion: The coexistence of Amyand's and Maydl's hernias is an extremely rare occurrence. Early surgical exploration remains the key to diagnosis and successful management.

Keywords: Obstructed hernia, Appendix, Amyand's hernia, Madyl's hernia, Orchidectomy.

Journal of Surgery Archives (2026); DOI: 10.21590/jsa.04.01.06

How to cite this article: Singh SK, Saha A, Sharma H, Mittal S, A Rare Presentation of Obstructed Inguinal Hernia with Sac Containing Appendix and Loop of Ileum (Amyand's and Maydl's Hernia). Journal of Surgery Archives. 2026;4(1):29-31.

Source of support: Nil.

Conflict of interest: None

INTRODUCTION

Inguinal hernia is one of the most common general surgical conditions, with a prevalence of approximately 1.5 to 2 million individuals in India, but unusual sac contents may lead to diagnostic and operative challenges[1]. Although the sac may commonly contain omentum or bowel segment, sometimes unusual contents, viz. appendix, bladder, caecum, sigmoid colon, etc., may be present, leading to different complications[2]. Amyand's hernia, first described by Claudius Amyand in 1735, refers to the presence of the appendix within an inguinal hernia sac, with or without inflammation. The appendix may become incarcerated within Amyand's hernia and lead to further complications such as strangulation and perforation. Its incidence is approximately 0.4 to 1% of all inguinal hernias.[3,4] Maydl's hernia involves herniation of two loops of small bowel with a central intra-abdominal loop that becomes strangulated, also termed the "W - shaped hernia".[5] The coexistence of both appendix and small bowel loops within the same obstructed sac is exceedingly rare.[6] Here, we present such a case complicated by testicular gangrene, successfully managed operatively.

Case Presentation

A 52-year-old male presented to the emergency department with complaints of non-passage of flatus and feces for 4 days and an irreducible right inguinal swelling for 7 days. He denied any history of previous surgery or trauma.

Clinical Examination

The patient was mildly dehydrated, pulse 110/min, BP 110/70 mmHg. Abdomen was mildly distended with diffuse tenderness and hyperactive bowel sounds. A tender, irreducible, tense swelling of 8×6 cm was palpable in the right inguinal region, with loss of cough impulse. Scrotal skin was congested and tender.

Provisional Diagnosis

Obstructed Right Indirect Inguinal Hernia.

Investigations

The patient's TLC was raised while other hematological and Biochemical parameters were within normal limits. Ultrasonography (USG) of the abdomen and pelvis revealed an obstructed right inguinal hernia with decreased vascularity of the sac contents, suggestive of possible compromise of vascularity of the contents.

Operative Findings

An emergency surgery with right groin exploration was performed. The hernia sac was found containing both the

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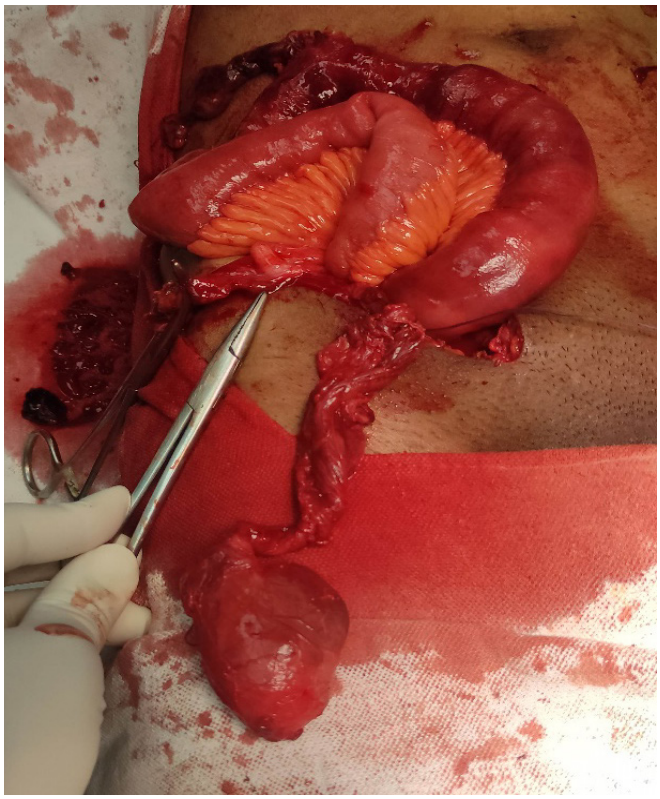

Fig. 1: Needle holder pointing towards appendix (Amyand's Hernia Component) and dusky bowel loop (Maydl's Hernia Component) and right testis post ligation of cord structures.

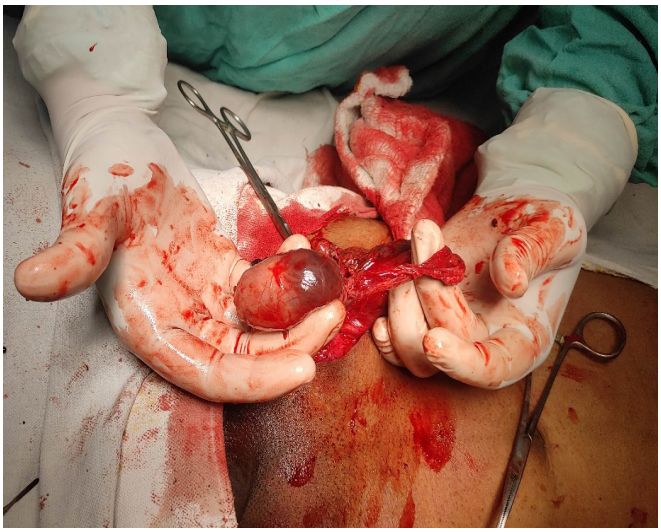

Fig. 2: Image showing gangrenous right testis

appendix and a loop of terminal ileum, consistent with a combination of Amyand's and Maydl's hernia [Fig 1]. The appendix appeared congested but not perforated. The loop of ileum was viable after warm saline ("hot mop") application. The right testicle was found gangrenous due to a compromised vascular supply from the compressed spermatic cord [Fig. 2].

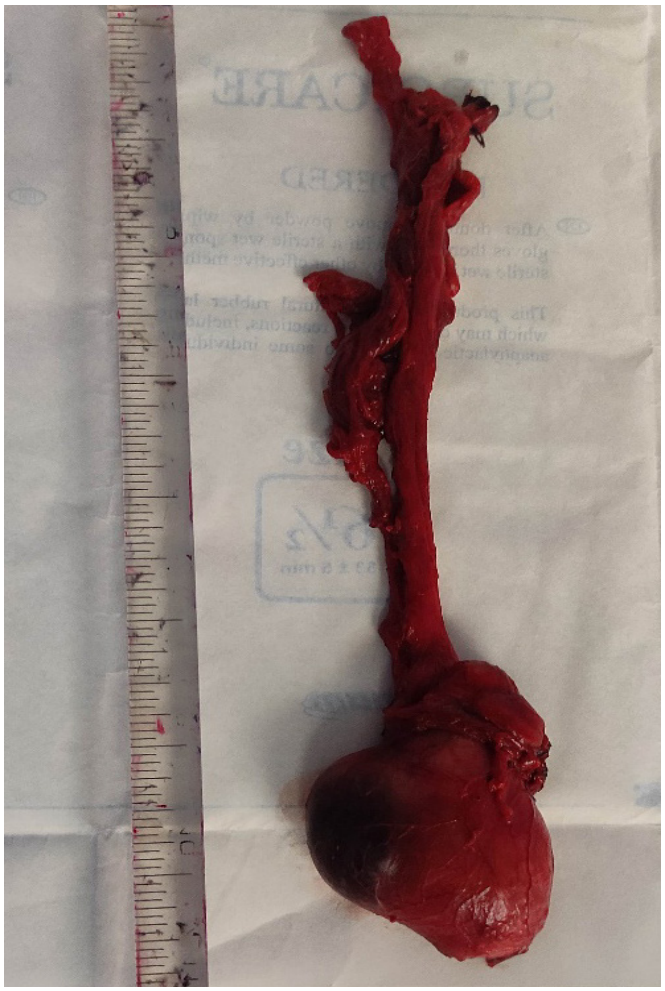

Fig. 3: Right orchidectomy specimen

Procedures Performed

We performed a Right orchidectomy for gangrenous testis [Fig. 3], reduction of viable bowel loops after a hot mop trial and inspection [Fig 4]. This was followed by anatomical repair of the posterior wall of the inguinal canal. We did not proceed with the Lichtenstein repair due to the risk of contamination and the future possibility of mesh infection. The External Oblique Aponeurosis was closed with 2-0 Synthetic Absorbable Polyglactin 910 suture and the skin was closed with 2-0 Nylon.

Postoperative Course

The patient was started on intravenous antibiotics and fluids. Bowel sounds returned on postoperative day 2, a liquid diet was started on POD 2, and regular oral intake resumed on POD 3. The patient was discharged on postoperative day 7. Follow-up was uneventful.

DISCUSSION

Amyand's hernia is rare and usually diagnosed intraoperatively[10]. The appendix may be normal, inflamed, or perforated within the sac. The Losanoff and Basson classification (2007) guides its management based on appendiceal and hernial status[7].

Fig. 4: Improvement in bowel loop colour after hot mop trial

Maydl's hernia carries a high risk of strangulation due to the intra-abdominal loop that may become necrotic even if the external sac contents appear viable[5]. In this case, the simultaneous occurrence of Amyand's and Maydl's hernia is extremely rare, with very few cases documented in literature.[8] Since the appendix of this patient was not inflamed, we did not do appendicectomy, which has been reiterated in existing literature as well.[9] The associated testicular gangrene due to vascular compromise further adds to its uniqueness. Early surgical intervention is lifesaving.

Key learning points

- Atypical contents in hernia sacs should always be anticipated.
- USG, CECT Abdomen and intraoperative findings guide management.
- In emergency cases, prosthetic mesh should be avoided due to risk of mesh contamination.
- Testicular viability must be assessed during groin exploration in such cases.

CONCLUSION

Coexistence of Amyand's and Maydl's hernia in an obstructed inguinal hernia is exceedingly rare. Prompt diagnosis and emergency surgical exploration are crucial for favorable outcomes. Surgeons must maintain a high index of suspicion for atypical sac contents in irreducible or obstructed hernias.

DECLARATION

The authors declare no competing interests. Due consent was taken from the patient for the procedure and for publication of the case report.

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