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Right Direct Inguinoscrotal Hernia with History of Abdominal Tuberculosis: A Case Report of Successful Open Mesh Hernioplasty

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Abstract

Inguinal hernia is one of the most common surgical conditions encountered in clinical practice. Direct inguinal hernias occur due to weakness in the posterior wall of the inguinal canal, specifically within Hesselbach's triangle. The coexistence of inguinal hernia with a history of abdominal tuberculosis is uncommon and presents unique diagnostic and surgical considerations.

We report a case of a 39-year-old male presenting with a right-sided direct inguinoscrotal hernia, with a past history of abdominal tuberculosis treated with a full course of anti-tubercular therapy. The patient underwent elective open mesh hernioplasty using polypropylene mesh under spinal anesthesia. The intraoperative and postoperative periods were uneventful.

This case highlights that previous abdominal tuberculosis, once adequately treated, does not contraindicate standard mesh hernia repair and can yield successful outcomes with proper evaluation and surgical planning.

Keywords: Direct inguinal hernia, Abdominal tuberculosis, Mesh hernioplasty, Inguinoscrotal swelling, Case report

Introduction

Inguinal hernia is a frequently encountered condition in general surgery, with direct inguinal hernias resulting from weakness of the transversalis fascia in Hesselbach's triangle. Risk factors include chronic physical strain, increased intra-abdominal pressure, and occupational hazards.

Abdominal tuberculosis (Koch's abdomen) can lead to chronic inflammation, adhesions, and ascites, potentially affecting abdominal wall integrity and healing. However, the occurrence of inguinal hernia following treated abdominal tuberculosis is rarely reported.

This case aims to highlight the safe and effective management of a direct inguinal hernia in a patient with a prior history of abdominal tuberculosis.

Case Presentation

Patient Information

A 39-year-old male presented with complaints of swelling in the right inguinoscrotal region for 5–6 months, associated with mild pain. The swelling was gradual in onset and progressively increased in size.

Clinical Findings Swelling was reducible

Increased on standing and straining (positive Valsalva maneuver) Positive cough impulse

Ring invagination test: Positive

Zieman's test: Positive

No signs of obstruction, strangulation, or irreducibility were noted. Past Medical History

The patient had a significant history of:

Abdominal tuberculosis (Koch's abdomen) Completed 6-month anti-tubercular therapy History of ascites

Diagnostic laparoscopy performed during evaluation

At present, the patient was disease-free with no evidence of active tuberculosis. Investigations

Laboratory Findings Hemoglobin: 15.7 g/dL WBC Count: 3,680/mmS Platelets: 1.88 lakhs/mmS

Serum Creatinine: 0.8 mg/dL Prothrombin Time: 13.3 seconds HIV & HBsAg: Negative

All parameters were within acceptable limits for surgery. Imaging

Ultrasonography revealed:

Right direct inguinal hernia Defect size: 1.2 cm

Herniation of small bowel loops on Valsalva

Reducible and non-obstructed Incidental mild splenomegaly Diagnosis

Right Direct Inguinoscrotal Hernia in a patient with a history of Abdominal Tuberculosis Treatment Plan

The patient was planned for:

Elective open mesh hernioplasty Spinal anesthesia

Polypropylene mesh (7.6 × 15 cm) Surgical Procedure

A standard open inguinal hernioplasty was performed with the following steps: Skin incision (6–7 cm) parallel to the inguinal ligament

Dissection of layers and exposure of inguinal canal

Identification and isolation of hernia sac Opening of sac and reduction of contents Transfixation and ligation using Vicryl 2-0

Placement of polypropylene mesh over posterior wall Layered closure with sterile dressing

Intraoperative Findings

Defect size approximately 1.2 cm Contents: viable small bowel

No obstruction or strangulation Minimal blood loss (~50 mL)

Postoperative Course

Hemodynamically stable postoperatively

Gradual progression from nil per oral to normal diet Pain managed conservatively

No complications such as infection, bleeding, or recurrence

The patient was discharged in stable condition and remained asymptomatic on follow-up. Discussion

Direct inguinal hernias typically occur in older individuals due to weakening of the abdominal wall; however, in this case, occupational strain contributed to early presentation.

The association with previous abdominal tuberculosis is clinically significant. Tuberculosis can lead to fibrosis, adhesions, and altered tissue planes, which may theoretically complicate surgical procedures. However, in this patient, prior completion of anti-tubercular therapy and absence of active disease allowed safe surgical intervention.

This case demonstrates:

Prior abdominal tuberculosis is not a contraindication for mesh repair Proper preoperative assessment ensures safe outcomes

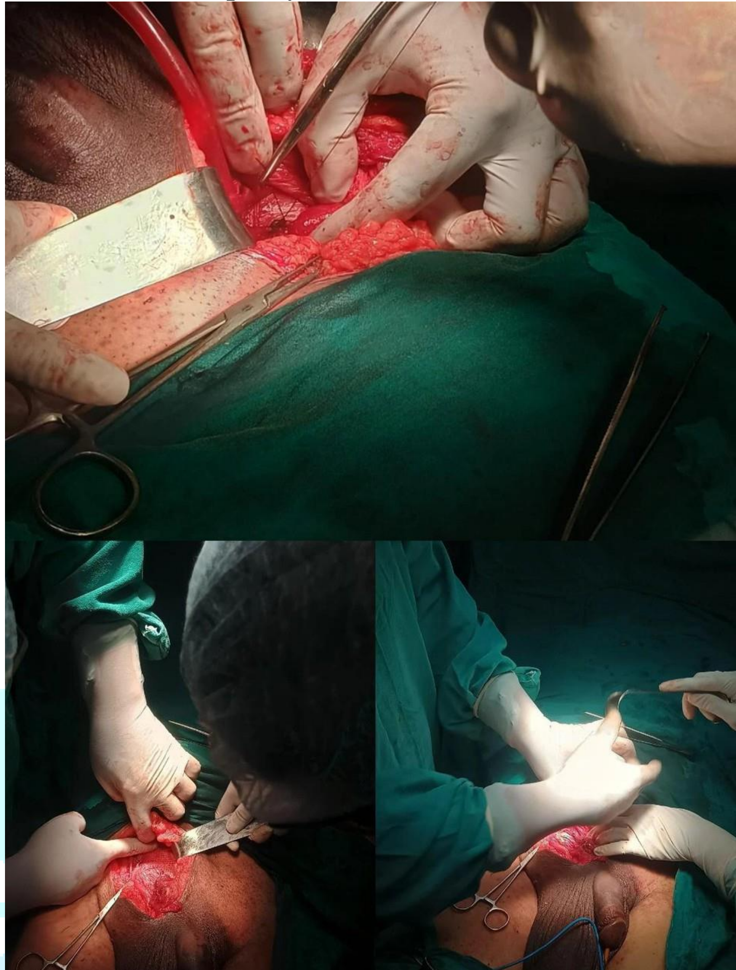
Open mesh hernioplasty remains a reliable and cost-effective method

Conclusion

Direct inguinoscrotal hernia can be safely managed with open mesh hernioplasty in patients with a history of abdominal tuberculosis, provided the disease is adequately treated.

Thorough clinical evaluation and appropriate surgical planning are essential for successful outcomes. This case supports the continued use of standard hernia repair techniques even in patients with complex past medical histories.

Surgical procedure of inginoscrotal Hernioplasty



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