

Case Report

Sliding inguinal hernia: a technical challenge

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ABSTRACT

Sliding inguinal hernia continues to be the most challenging hernia to treat. Both diagnosis and treatment pose a dilemma to the attending surgeon. Understanding the pathological anatomy of the sliding inguinal hernia is essential for optimal choice of surgical procedure without causing damage to the involved viscera. A case of sliding inguinal hernia is presented to highlight the diagnostic and technical challenges for repair of sliding hernia. Majority of sliding hernias are diagnosed at the time of surgery. Sigmoid colon is a commonest content in a left sided sliding hernia. Bevan's technique is best suited to deal with the sac followed by Lichtenstein tension-free mesh repair.

Keywords: Sliding, Inguinal, Hernia, Treatment

INTRODUCTION

Sliding inguinal hernia is an uncommon hernia. It was first described by Gallen and later described with specificity by Antonio Scarpa.^{1,2} The most precise way of defining a sliding inguinal hernia is when the viscera constitute a part of the wall of the sac. In other words, herniation of the extraperitoneal surface of an organ. On the left side the content is usually the sigmoid colon followed by the urinary bladder. Whereas on the right side, the content is usually the caecum and appendix followed by the urinary bladder. It is quite difficult to diagnose a sliding hernia pre-operatively. A case of sliding inguinal hernia containing the sigmoid colon is presented.

CASE REPORT

A 54-year-old male patient presented with a large left sided inguino-scrotal swelling. The duration of the swelling was 3 years. The swelling had increased in size over a period of time and had become irreducible. There was no history of symptoms suggestive of obstruction, strangulation or alteration in bowel habits.

Physical examination revealed a large partially irreducible left sided inguinoscrotal hernia. A USG of the swelling revealed bowel loops. Patient underwent surgical repair under regional anesthesia. The sac was identified and dissected free from the cord structures. The contents of the sac couldn't be reduced fully. The sac was opened at a safe site. The content was a large length of the sigmoid colon (Figure 1).

Bevan's technique was used to deal with the sac (Figure 2). An inverted U-Shaped incision was made parallel and 1 cm away from the attachment of the sac and sigmoid colon up to the deep ring. The sigmoid colon was repositioned back into the peritoneum cavity and defect in the wall of the sac was sutured with 3-0 mersilk. The sac was closed by a purse string suture flush with the plane of the inferior epigastric artery. The transversalis fascia was plicated with interrupted 2-0 Prolene sutures. A tension free Lichtenstein mesh repair was done.

The layers of the incision were closed. A firm scrotal support was given for 48 hours. Skin staples were removed on the tenth postoperative day. Patient has been following up for one year with no evidence of the recurrence.

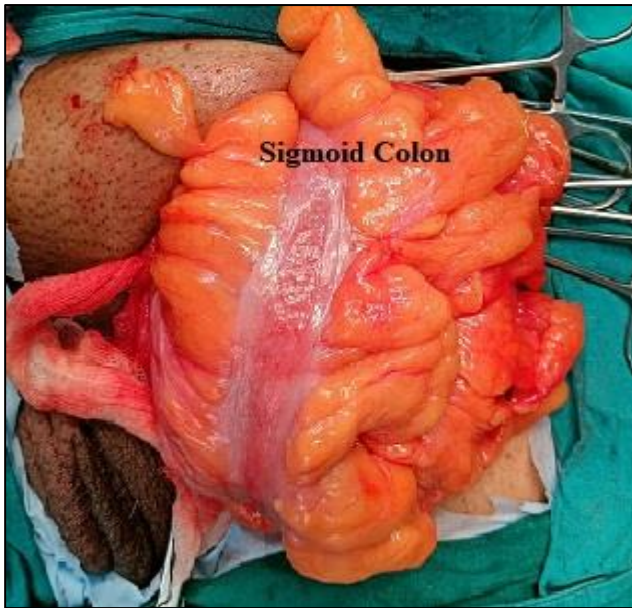


Figure 1: Left sided sliding inguinal hernia containing the sigmoid colon.

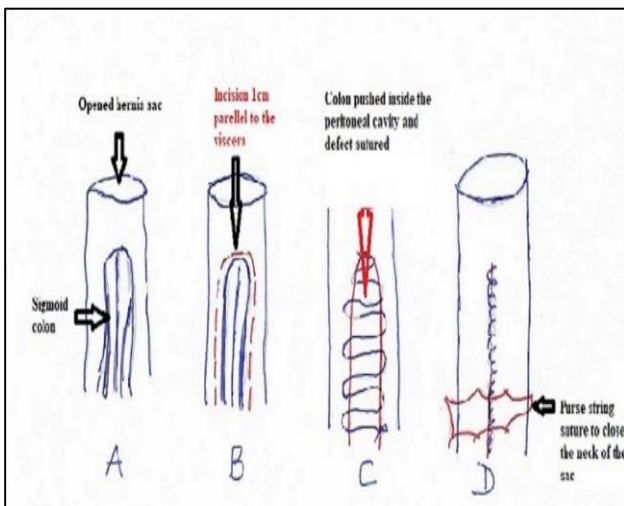


Figure 2: Dealing with the sac by Bevan's technique.

DISCUSSION

Sliding inguinal hernia continues to pose both a diagnostic and surgical dilemma.²⁻⁴ Sliding inguinal hernia is associated with a higher recurrence rate as compared to other inguinal hernias. Complete awareness of the abnormal anatomy of this hernia is essential to prevent damage to the viscera during repair. Symptomatically this hernia presents as a usual inguinal hernia. Partial irreducibility serves as a red flag and should raise the suspicion of a sliding hernia.

Imaging modalities will reveal bowel as the content. Contrast enhanced computed tomography (CECT) will reveal the nature of contents in a large inguinoscrotal hernia including the presence of the sigmoid colon or any other viscera in the sac. It is therefore a safe practice to

get a CECT done in large inguinoscrotal swellings before surgery. This provides a road map for determining the best surgical option for repair.⁴⁻⁶

Majority of cases reported in literature have described that the diagnosis of a sliding inguinal hernia is made on table.⁷⁻⁹ Due to the intricate anatomy of the sac, dissection needs to be done carefully avoiding injury to the colon. The sac needs to be separated from the cord structures with great care all along the length up to the deep ring. The sac is then opened after identifying a safe area where there is no underlying viscera palpable.

The diagnosis is then confirmed after opening the sac. No attempt should be made to dissect sigmoid colon from the sac as it happens to be extraperitoneal portion of the sigmoid colon that constitutes the wall of the sac. Bevan's technique is a safe option to deal with the sac.^{3,4,8} An inverted U-shaped incision is made on the 1 cm lateral and parallel to the extraperitoneal portion of the sigmoid colon. This enables the colon to be repositioned back into the peritoneal cavity. The defect thus created in the sac after peritonealising the sigmoid colon is then closed with 3-0 mersilk. The hernia sac is therefore reconstituted after having reperitonealised the colon. The patient is given head-low position to ensure that intraperitoneal contents fall away from the site. The neck of the sac is closed with a 3-0 mersilk purse string suture.

Transversalis fascia should be plicated with interrupted polypropylene 2-0 non-absorbable sutures. This adds strength to the weak posterior wall. A Lichtenstein tension-free mesh repair can then be performed.¹⁰ This pattern of repair for a sliding inguinal hernia is associated with a very low incidence of recurrence compared to old repair described by LaRoque.⁵ Laparoscopic approach has been described for managing sliding inguinal hernia.¹¹ However, the results are no way superior to the open technique.

CONCLUSION

A partially irreducible inguinal hernia especially on the left side should raise the suspicion of a sliding hernia. The diagnosis of a sliding hernia is invariably done on the operating table during the course of surgery. Bevan's technique provides a safe option for dealing with the sac. A Lichtenstein's tension free mesh repair strengthens the posterior wall thereby reducing the recurrence rate to a bare minimum.

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