

Unusual Presentation of Maydl's Hernia

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Summary

Maydl's hernia is an uncommon presentation of inguinal hernia whereby predominantly right sided afferent and efferent loops of bowel herniate into the sac with an intervening intra-abdominal loop of bowel that is prone to strangulation. This could be missed if hernia repair is performed with inguinal approach only. We present a rare case of unusual presentation of Maydl's hernia which involved left

sided loops of bowel with strangulation of afferent and efferent loops with viable intraabdominal loop of bowel that necessitated left hemicolectomy.

Keywords: Madyl's Hernia, Hemicolectomy, Left Colon Content

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Introduction

Maydl's hernia is rare and lethal if not diagnosed and treated. It is a condition where the inguinal hernia sac contains usually right sides afferent and efferent loops bowel with an intervening intraabdominal loop of bowel that is prone to strangulation (1). We present an unusual variation whereby left sided large bowel is involved with strangulated bowel in the sac and viable intervening intra-abdominal loops of bowel. We describe clinical presentation and surgical management.

Case Report

A thirty two year old man presented to the general surgical unit at Kenyatta National Hospital with one day history of painful irreducible left inguinal swelling, bilious vomiting, abdominal pain and distention, obstipation, hotness of body and awareness of heartbeat. History of reducible left inguinal swelling and weight lifting without protective belt was present, however, there was negative history of chronic cough, abdominal wall injury and family history of hernia.

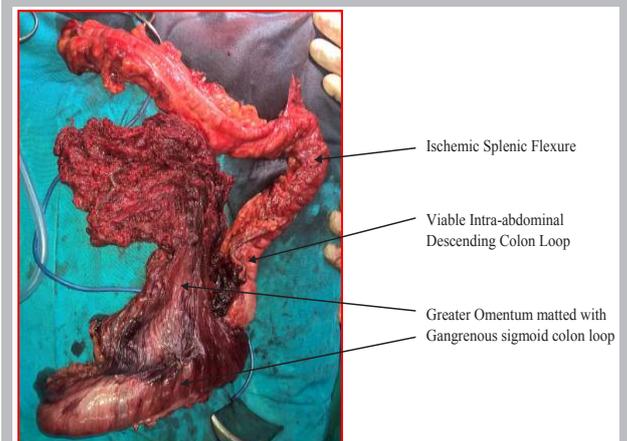
On examination, he was diaphoretic, dehydrated, febrile (37.4°C), tachycardic (110 beats/minute), tachypneic (22 breathes/minute) with blood pressure of 140/100 mmHg. Abdomen was distended and moving with respiration with peri-umbilical tenderness. Rebound tenderness, guarding and rigidity were absent. Bowel sounds were increased in frequency and intensity. Left inguinal examination revealed tender irreducible inguinal swelling with absent bowel sounds. Digital rectal exam revealed an empty rectum, there was no melena nor hematochezia.

Complete blood count showed leukocytosis, neutrophilia while other parameters were normal. Both the renal function test and liver function tests were normal. An impression of strangulated left inguinal hernia was made.

He received intravenous fluids, antibiotics and analgesics. He had a nasogastric tube and urethra catheter. Informed consent was obtained for surgical exploration under general anesthesia.

Intra-operatively, the hernia sac was accessed via left inguinal incision, it contained gangrenous bowel whose abdominal extent as well as the neck of the sac could not be defined necessitating a laparotomy. The hernia sac contained ischemic transverse colon (splenic flexure) with gangrenous sigmoid colon and greater omentum, intervening intra-abdominal descending colon was viable (Figure 1). Omentectomy with left hemicolectomy, colorectal anastomosis and left modified *Basini* repair were performed.

Figure 1: Left hemicolectomy specimen



Postoperative period was uneventful and the patient was discharged on day 6 through the surgical outpatient clinic.

Discussion

Inguinal hernia is an abnormal protrusion of intra-abdominal tissue through a fascial or muscular defect into the groin region. It can get irreducible and strangulate when the blood supply is compromised, a life-threatening condition requiring prompt surgical intervention (2,3).

Karel Maydl, a Czech surgeon described this condition where viable loops of bowel (afferent and efferent) are within the sac with an intervening non-viable intra-abdominal loop of bowel (4). It is rare, accounting for 0.5 to 1.92% of strangulated hernias, frequent in men, predominantly on the right containing either terminal ileum or caecum (5-10). In type 1 all bowel loops consist of small intestine while type 2 contains both small and large intestine loops. Type 3 contains only large intestines (11).

Chronic inguinal hernias with wide-necked sacs are prone to adhesions and promotes prolapse of bowel which may lead to incarceration, obstruction or strangulation (12). It results in 'W' configuration preventing central bowel loop from herniating while permitting the more mobile loops to herniate around them (13). Passage of afferent and efferent loops of bowel around the central intraabdominal bowel loop predisposes it to strangulation which could result in peritonitis (14).

The significance of Maydl's hernia is the risk of a strangulated central intraabdominal loop being missed at surgery with inguinal approach (15). High index of suspicion, adequate surgical exposure is essential; therefore laparotomy is recommended (16).

Maydl described strangulation of the intra-abdominal bowel loop which was always gangrenous independently or combined with one of the bowel loops in the hernia sac. In our case the bowel loops within the hernia sac were ischemic/gangrenous and the intra-abdominal segment was viable, which has not been reported.

The extent of bowel resection is determined by length of gangrenous segment involved (17). Right hemicolectomy for gangrenous loops of cecum, ascending colon and hepatic flexure as performed by Moss et al. or a left hemicolectomy as seen in our case (18). For hernia repair we used modified Bassini's technique (19).

Conclusion

We report an unusual presentation of Maydl's hernia and emphasize on prompt emergency laparotomy and tissue repair of inguinal defect as standard of care.

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