

CASE REPORT

OMENTOCELE AN UNUSUAL CAUSE OF BAND INTESTINAL OBSTRUCTION

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INTRODUCTION: Mechanical small bowel obstruction is the most commonly encountered surgical disorder of the small intestine. The two most common causes are band obstruction and strangulated hernias. Adhesions and band formation after previous abdominal surgery accounts for up to 75% of the cases of small bowel obstruction [1]. In these cases the fibrous bands are attached to the parities which obstructs the bowel and can cause strangulation. Again, in cases of hernia, strangulation of bowel occurs due to the constriction caused by the internal or the external inguinal rings. But strangulated bowel obstruction in an inguinal hernia where the bowel is not a content of the hernia sac is unheard of. Here we present a very unusual case of intestinal obstruction with hernia where the strangulation of bowel was not caused by the internal or external rings in the inguinal canal but intra-abdominally by the omentum forming a band as it enters into the inguinal canal as a content of the hernial sac. Case of omental band causing obstruction within the hernia sac in inguinal canal has been documented [2] but to the best of our knowledge, this is the first reported case of omental content of the hernia sac causing an intraabdominal band and subsequent intestinal obstruction.

CASE REPORT: A 47 year old male presented to the emergency with complaints of 5 hour history of abdominal pain, distension and non passage of flatus. There was no past history of any operations and the patient did not have any co morbidities. On examination it was found that the patient had tachycardia, was dehydrated but normotensive. On clinical examination of the abdomen it was found that abdomen was rigid, distended and rebound tenderness was present. A small 5 cm x 4 cm swelling in the inguinal region was also noticed and was diagnosed as an indirect inguinal hernia containing omentum which was irreducible but soft and non tender. Ballooning of the rectum was found on per-rectal examination. Plain radiograph of the patient's abdomen in erect posture showed multiple air fluid filled loops consistent with small bowel obstruction. After proper resuscitation and some routine investigations, the patient was urgently taken to the operating room for exploration under general anesthesia. Since the patient had generalised peritonitis a decision to perform midline laparotomy was taken. On entering the abdomen an omental band was found entering into the inguinal canal through the deep inguinal ring. 40 cm long segment of gangrenous bowel was found to be strangulated by the omental band entering into the inguinal canal. On applying traction on the omental band, it was released from the deep inguinal ring and the hernia was also reduced. The gangrenous bowel was resected and primary anastomosis was done. The internal inguinal ring was narrowed with nonabsorbable suture. Proper repair of the inguinal defect through inguinal approach with mesh was postponed for the time being due to the emergency nature of the operation and intraabdominal approach. In the postoperative period, the patient's recovery was uneventful and was discharged to attend follow up clinic.

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DISCUSSION: Intestinal obstruction can occur due to intraabdominal bands and also due to groin hernias. In both cases it could lead to strangulation and gangrene of the gut. Intraabdominal bands can be either congenital or acquired. Acquired bands are formed due to disruption in the normal physiological process of peritoneal healing [3] and are generally form between two serosal surfaces, or an omentum adherent to the parities [4]. Most commonly they occur after a previous abdominal operation. The rate of developing intraabdominal adhesion after an abdominal operation is between 67% and 93% [5]. This ratio is higher in gynaecologic and pelvic operations [6]. Omental bands adhering to parietal peritoneum are common, however as in our case, an omental band causing obstruction due to the omentum entering into the inguinal canal is very unusual. In the virgin abdomen hernias are the most important cause of intestinal obstruction. [7] Intestinal obstruction in a hernia results from constriction of the bowel and the superficial or the deep inguinal ring. In both cases the segment of the strangulated bowel is a content of the hernia sac. The only exception being the Maydl's hernia in which two loops of bowel are contained in the hernia sac and the infarcted portion of the gut is intraabdominal. [8]. One case has been documented where the cause of strangulation in a hernia sac is not due to the constricting deep or the superficial ring, but an omental band within the hernial sac. [2] Even in this case, the strangulated portion of the gut was a content of the hernial sac. But the omental content of an inguinal hernia forming an intraabdominal band causing obstruction and strangulation of the bowel intra abdominally is unheard of. Here the bowel is not a content of the hernial sac itself. Also, this departs from the usual mechanism of intestinal obstruction in groin hernias. This case also throws up interesting questions about management of obstructed or strangulated groin hernias. Usually in such a setting where intestinal obstruction due to a groin hernia is suspected, exploration is mainly done in a trans inguinal route. Most of the time, through the inguinal approach, resection of the strangulated gut as well as repair of the hernia defect can be done. However in our case since the patient had generalised peritonitis, midline abdominal approach was taken and proved to be advantageous since the gangrenous bowel was intra-abdominally located. Hernia containing omentum is a benign clinical entity which is most commonly managed in an elective setting. But as this case shows that omentocele can also present as a surgical emergency with bowel involvement.

CONCLUSION: Intestinal obstructions due to intraabdominal bands and due to hernias are a common entity. In hernias containing bowel, intestinal obstruction occurs due to constricting deep and superficial inguinal rings or in rare cases due to omental band within the hernial sac [2]. However inguinal hernias which contain omentum do not as a rule present with intestinal obstruction. Therefore these hernias containing omentum are generally repaired in the elective setting. But as seen in our case, even an omentocele can present in the emergency department with intestinal obstruction. Furthermore no previous history of any operations which can form a band tend to confuse the diagnosis of the actual cause of acute intestinal obstruction. This should be kept in mind when dealing with a case of hernia with intestinal obstruction. In such cases it is best to explore via a midline approach rather than the trans inguinal route which allows proper access for handling the strangulated gut.

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REFERENCES:

1. Ali Tavakkolizadeh Edward E. Whang et al. Small Intestine In: F C Brunicaardi Schwartz's Principles of Surgery 9th Ed USA: The McGraw Hill Companies Inc.2010.P-988.
2. Senthil Nachimuthu Szabolcs Gergely Strangulated inguinal hernia due to an omental band adhesion within the hernial sac: a case report Cases Journal 2009, 2:21doi:10.1186/1757-1626-2-21.
3. Remah M. Kamel Prevention of postoperative peritoneal adhesions European Journal of Obstetrics & Gynecology and Reproductive Biology 150 (2010) 111-118.
4. Norman S Williams Christopher J.K Bulstrode P. Ronan O Connell Bailey and Love's short practice of surgery UK. Hodder Arnold (Publishers) Ltd: 2008. P 1188 -1203.
5. Tito WA, Sarr MG. Intestinal obstructions. In: Zuidema GD, Nyhus LM, editors. Schakelford's surgery of alimentary tract. Volume 5. Philadelphia: WB Saunders 1996; 375-416.
6. Menzies D. Prospective adhesions: their treatment and relevance in clinical practice. Ann R Coll Surg Engl 1993; 75: 147-153.
7. Merril T. Dayton Small bowel obstruction In: Cameron Ed. Current Surgical Therapy, 8th ed., 2004 Mosby, Inc.
8. M. Ganesaratnam Maydl's hernia: report of a series of seven cases and review of the literature British Journal of Surgery 72 (9):1985 .pages 737-738.

FIGURES



Photo 1- Gangrenous gut with omentum going to pelvis



Photo 2(a) - Omental band going into deep inguinal ring



Photo 2(b) - Omental band entering into deep inguinal ring

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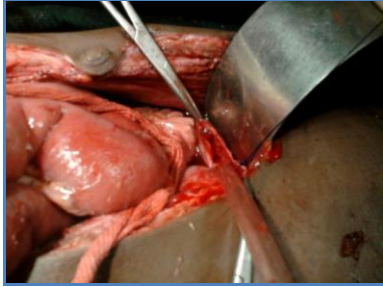


Photo 3 – Enlarged deep inguinal ring after release of omentocele



Photo 4 – Resected gangrenous small bowel

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