

Case Report

Fallopian tube as a cause of intestinal obstruction: a rare case report with review of literature

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ABSTRACT

Adhesive Intestinal obstruction is the most common cause of intestinal obstruction in post-operative period. Diagnosis is based on history, clinical examination, plain X-ray abdomen. Authors here report an interesting case of intestinal obstruction after surgery for chronic calcific pancreatitis with pancreatic duct stone with intractable pain. In post-operative period patient developed features of intestinal obstruction, patient was planned for re-exploration and it was found that band was formed by left fallopian tube with transition point at terminal ileum and treated successfully with left Salpingectomy. Very few cases of fallopian tube as cause of intestinal obstruction have been reported in literature and it should be considered as one of the cause of intestinal obstruction in females presenting with acute abdomen.

Keywords: Fallopian tube, Intestinal obstruction, Laparotomy

INTRODUCTION

Adhesions are the abnormal fibrous band of normal healing process in injured peritoneum due to disruption of fibrinolytic system. Adhesion formation may be congenital or acquired.¹ Adhesive intestinal obstruction is one of the leading causes of surgical emergencies that may require an immediate surgery. 60% of patients of small bowel obstructions are of post-operative adhesions so it is one the most common cause of intestinal obstruction.² Complications of adhesions include infertility, abdominal and pelvic pain. re-exploration and enterotomy during adhesiolysis leading to increased morbidity and mortality. Therefore, evaluation of cause of obstruction is important.³ Surgeons should be vigilant in making diagnosis, delayed intestinal obstruction can result in strangulation, gangrene or perforation of bowel. Adhesive bowel obstruction can present in less than a month to more than 20 years after initial surgery.⁴

CASE REPORT

Among 39-years female patient presented in Surgical clinic with complains of severe pain abdomen in epigastric region, multiple episode lasting for 2-3 hours on and off for past 3 years. Pain was acute in onset, intermittent, colicky, radiating to back, associated with non-bilious vomiting. It was relieved with oral medication initially but sometimes patient required injectable medication. There was no history of jaundice, fever, passage of black tarry stools. There was history of Pulmonary Kochs 20 years ago for which she took anti tubercular treatment for 6 months. There was no other co morbidity. There was no history of previous surgery/ or hospitalization. Vital were stable at the time of admission. Her BMI was 22.08kg/m². Abdomen was soft with mild tenderness present in epigastric, no palpable lump or hepatosplenomegaly. Bowel sounds were normal. No free fluid in abdomen was found. Routine blood tests including a complete blood cell count (CBC)

and chemistry studies including LFT and KFT had normal results. Ultrasound abdomen done reported chronic calcific pancreatitis with multiple pancreatic duct stones. Magnetic retrograde cholangiopancreatography (MRCP) was done which showed dilated and irregular main pancreatic duct with multiple intraductal calculi suggestive of chronic calcific pancreatitis with pancreatic duct calculi. Size of MPD was 12 mm. Patient underwent Modified Puestow's Procedure under general anaesthesia (Figure 1).

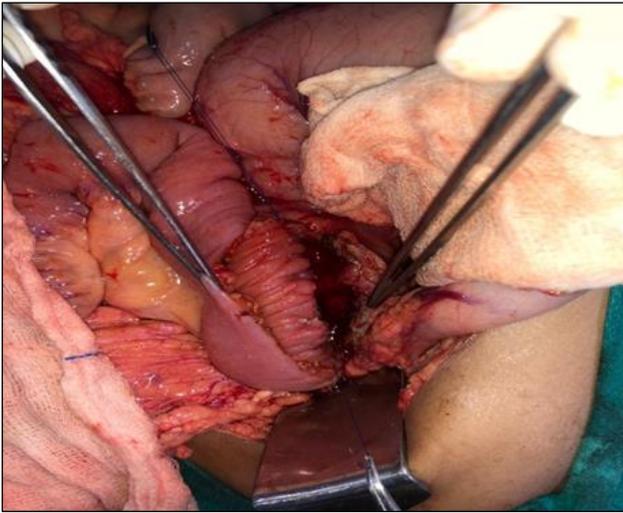


Figure 1: Intraoperative photograph of modified puestow's procedure showing dilated main pancreatic duct.



Figure 2: Intraoperative photograph of re-exploration showing left fallopian tube forming band over ileum causing small bowel obstruction.

Postoperative period was uneventful till 5th day. On POD6, patient developed bilious vomiting. From POD7 onwards patient developed continuous hypogastric abdominal pain and distension. Plain x ray abdomen done

was suggestive of multiple air fluid levels and small bowel obstruction.

Contrast enhanced computer tomography (CECT) Whole abdomen reported small bowel obstruction with no evidence of anastomotic leak and atrophic pancreas. Patient was kept nil orally. There was abdominal distension with non-passage of flatus and stools. She was subjected for diagnostic laparoscopy followed by exploratory laparotomy by lower midline incision. Intraoperatively, multiple interbowel loop adhesions were present with left fallopian tube forming a band with mesentery over terminal ileum forming transitional zone (Figure 2).

Adhesiolysis with left Salpingectomy was done. Post operatively patient's condition improved. She was gradually started on liquids and then soft diet. She was discharged in satisfactory condition and is doing fine in follow up.

DISCUSSION

Adhesions (60%) are the most common cause of intestinal obstruction, followed by hernia (25%) and neoplasm (5-10%). Sometimes it becomes surgical emergency. Complication of adhesions include infertility, abdominopelvic pain, readmission. Re -exploration causes burden over whole health system, increase work load for surgeons and increases morbidity for patients.¹⁻³ Pathogenesis of adhesion is desiccation and coagulation causing injury to mesothelial cells of peritoneal cavity leading to disruption of fibrinolytic system and imbalance between fibrin formation and disruption.⁵ Correct surgical techniques prevent post-operative adhesions like gentle handling of tissues, focus on planned surgery, decreasing time of surgery, frequent irrigation and aspiration and minimal use of cautery, laparoscopy as preferred technique of surgery, less use of dry towels or sponges in laparotomy, minimize drying of tissues and usage of starch- free gloves. Oxidized regenerated cellulose, use of drains made of latex increase the risk of adhesions.⁶ Anti-inflammatory agents, antibiotics, biochemical agents and physical barriers were introduced during laparotomy but these measures have not been proven by scientific studies for prevention of adhesive intestinal obstruction. Greater omentum and mid-line are common adherent sites, but these generally do not obstruct intestinal lumen.⁷ Li et al in 2012 in a meta- analysis between open vs laparoscopic adhesiolysis reported that pulmonary complications and post-operative ileus are less in laparoscopic adhesiolysis but no statistically significant difference in intraoperative bowel injuries and mortality between these two group. They concluded that laparoscopic adhesiolysis approach is better than open method.⁸

In this case, band was formed by left fallopian tube adhered to the mesentery over the terminal ileum leading to small bowel obstruction. According to literature, adhesions formed most commonly during

appendectomies, colorectal and gynaecological or urological surgeries are due to manipulation done in pelvis. Cameron et al has reported defect in the broad ligament as well as a fallopian tube acting as a band around the bowel in their study.⁹ Bugman et al have reported ectopic fallopian tube as cause of intestinal obstruction in a child.¹⁰ Surgeons need to adopt adhesion reduction strategy for better surgical outcomes, but till now there is not a single therapy to prevent intraperitoneal adhesions.

CONCLUSION

This case highlights importance of detailed preoperative work up and role of diagnostic laparoscopy before laparotomy to identify concomitant intra-abdominal pathology so that re exploration might be avoided. In this case chevron incision was used for puestow procedure so thorough abdominal examination could not be done during first surgery. Also fallopian tube as cause of intestinal obstruction is rare and should be kept in mind as one of the cause of bowel obstruction in females presenting with acute abdomen.

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