

# Congenital mesenteric defect results in internal hernia in an adult with obstructed small bowel

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## Introduction

- Internal hernia was defined as herniation of intestinal viscera through natural or unnatural aperture within the peritoneal cavity.
- These defects are either congenital or acquired. Congenital transmesenteric hernias occur when part of the intestines pass through an abnormal defect in the mesentery of the small bowel or the colon.
- Rare among the adult population, comprising only 0.2%–0.9%. Congenital mesenteric defects with internal hernia are more common in the pediatric population.
- Patients often present with nonspecific findings such as intermittent abdominal pain, nausea and vomiting.
- Rarely, an internal hernia can present as an acute abdomen secondary to intestinal obstruction which has a mortality rate up to 50%.

## Report

- 67-year-old female without any significant past medical or surgical history presented to the emergency department with acute onset worsening abdominal pain with nausea and vomiting.
- Physical exam was pain out of proportion and CT findings demonstrated internal hernia with moderate volume ascites concerning for ischemic bowel.
- Patient underwent exploratory laparotomy which demonstrated internal hernia through a congenital mesenteric defect in the right hemiabdomen near the root of the mesentery with ischemic small bowel requiring resection.
- Patient was left in discontinuity and was returned for reexploration. Open cholecystectomy, and Right hemicolectomy.
- The patient's recovery and hospital course was uncomplicated and discharged from the hospital post-operative day 5.

## Discussion

- Due to the rarity of its presentation in adults there is limited literature discussing congenital mesenteric defects in adults and the complications associated.
- Complications include internal hernias which may present with nonspecific findings of abdominal discomfort or lead to the development of acute intestinal obstruction.
- This requires appropriate and timely preoperative diagnosis and emergent surgical intervention.
- This case helps support the growing literature base regarding this disease and demonstrates proper management in acute presentations.

## Question

What was the etiology causing the strangulation:

1. Adhesions
2. Traumatic injury leading to defect in mesentery
3. Post-operative defect following bariatric surgery
4. Congenital defect in the mesentery.

## References

- Benyamini, P., Lopez, S., Cooper, M., Mohamad, O., & Maldini, G. (2016). Congenital mesenteric defect: an uncommon cause of bowel obstruction. *Hawaii Journal of Medicine & Public Health*, 75(2), 46.
- Butterworth, J., Cross, T., Butterworth, W., Mousa, P., & Thomas, S. (2013). Transmesenteric hernia: a rare cause of bowel ischaemia in adults. *International Journal of Surgery Case Reports*, 4(7), 568-570.
- Mall, M., & Burjorappa, S. (2012). Congenital mesenteric defect: description of a rare cause of distal intestinal obstruction in a neonate. *International journal of surgery case reports*, 3(3), 121-123.
- Kelahan, Linda, Christine O. Merikas, and Lawrence Chow. "A review of internal hernias related to congenital peritoneal fossae and apertures." *Abdominal Radiology* 46.5 (2021): 1825-1836.