

Small Bowel Obstruction Due to a Congenital Band: A Case Report

Azzouzi T^{1*}, Habbab A¹, Hamri A¹, Narjis Y¹, Benelkhaïat R¹

¹Department of Visceral Surgery, Ibn Tofail Hospital, Mohamed IV University Hospital Center, Marrakech, Morocco

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*Corresponding author: Azzouzi T

Department of Visceral Surgery, Ibn Tofail Hospital, Mohamed IV University Hospital Center, Marrakech, Morocco

Abstract

Case Report

Intestinal obstruction due to a congenital adhesion band, is rare condition occurring in patients with no prior abdominal surgery, representing a surgical emergency, in which delayed diagnosis and management can compromise the life prognosis. Through this case report, we aim to raise awareness among clinicians regarding the early recognition and management of this rare entity in order to prevent its complications.

Keywords: intestinal obstruction, congenital band, laparotomy, surgical emergency.

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INTRODUCTION

Acute small bowel obstruction due to a congenital band is an interruption of intestinal transit occurring in patients with no history of previous abdominal surgery. It is a surgical emergency that requires early intervention to improve prognosis. Any delay in management can compromise the patient's life due to the risk of intestinal necrosis and electrolyte disturbances.

OBJECTIVE

We report a case of small bowel obstruction caused by a congenital band to highlight the clinical, diagnostic, and therapeutic aspects of this rare condition.

CASE PRESENTATION

A 45-year-old male patient with no significant medical history presented to the emergency department with abdominal pain associated with signs of intestinal obstruction, including cessation of stool and gas and food vomiting, evolving for one day prior to admission.

The patient was afebrile and in a generally good condition. General examination: The patient was alert,

hemodynamically stable, and respiratory stable; Glasgow score: 15/15. Abdominal examination: The abdomen was distended, mildly tender, with no surgical scars; hernial orifices were free, and no bladder distension was noted. Rectal examination: The rectal ampulla was empty, sphincter tone normal, and the glove clean. Laboratory tests was normal.

Imaging Studies:

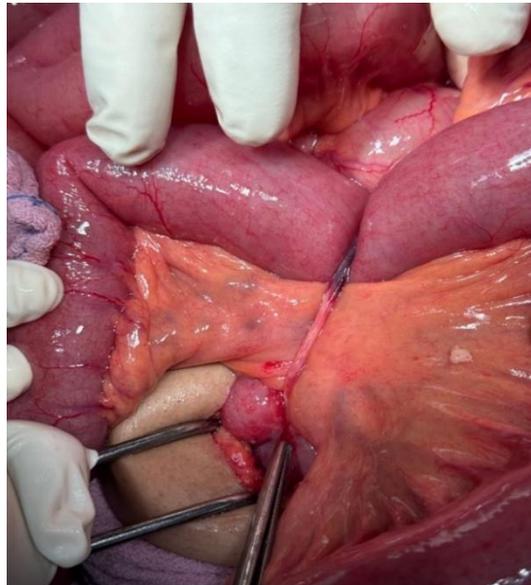
Upright abdominal X-ray showed air-fluid levels suggestive of small bowel obstruction. Abdominal CT scan revealed small bowel obstruction likely due to a congenital band, without signs of bowel compromise.

The patient underwent preoperative resuscitation followed by surgical management. A midline laparotomy extending over the umbilicus revealed: A small amount of serous fluid in the peritoneal cavity. Distended small bowel loops upstream of a single ileo-mesenteric congenital band located 40 cm from the ileocecal junction, with viable bowel.

Surgical procedure: The band was ligated and divided, the small bowel was decompressed, and a Redon drain (CH 18) was placed in the Douglas pouch.



Air fluid levels wider than tall, suggestive of small bowel obstruction. Department of Visceral Surgery, Ibn Tofail Hospital



Intraoperative image showing the ileo-mesenteric congenital band. Department of Visceral Surgery, Ibn Tofail Hospital

DISCUSSION

Small bowel obstruction due to a congenital band is a rare condition, accounting for 0.7–2% of all intestinal obstructions and 2–6% of obstructions caused by adhesions. It is more frequent in children than in adults. It occurs in patients without a history of abdominal surgery and who do not have chronic inflammatory bowel disease, abdominal tuberculosis, or incarcerated hernia.

Congenital bands result from abnormal adhesion of peritoneal folds during embryogenesis and may originate from embryonic structures such as the vitelline duct, vitelline artery, vitelline vein, or urachus. Obstruction occurs either due to trapping of the small bowel between the band and the mesentery, causing

strangulation, or via volvulus of the bowel around its vascular axis.

The clinical presentation depends on the degree of intestinal ischemia. It may present as an acute surgical abdomen, with diffuse tenderness or guarding and a sudden-onset obstructive syndrome, or as a more reassuring subacute presentation.

As with any intestinal obstruction, an upright abdominal X-ray is performed to confirm the diagnosis and locate the site of obstruction, while abdominal CT scan helps identify the etiology and assess for signs of bowel compromise. The definitive diagnosis is most often made intraoperatively.

Management is entirely surgical, consisting of division of the congenital band, assessment of the viability of the entrapped bowel, and resection if necrosis is present, with stoma formation in cases of septic abdomen.

CONCLUSION

The diagnosis of small bowel obstruction due to a congenital band should be considered in cases of high intestinal obstruction in patients without previous abdominal surgery.

Diagnosis can be challenging in subacute presentations or when initial conservative observation is undertaken, particularly if there is transient improvement.

Without timely surgical intervention, the condition can progress to intestinal ischemia and necrosis, followed by multiorgan failure, putting the patient's life at risk.

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