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# Small Bowel Obstruction Secondary to Congenital Peritonel Band in Adults

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***Authors' contributions***

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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***Case Study***

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## ABSTRACT

Acute intestinal obstruction in adults on a scarred abdomen is a usual etiology to see, but in rare cases, such as ours, intestinal obstruction may result from primary or congenital clamping. We report the case of a 17-year-old patient, without any surgical or traumatic history, presenting for an occlusive syndrome. Imaging revealed thickening of the last ileal loop and surgical exploration found a primitive bridle with no sign of digestive distress.

*Keywords: Small bowel obstruction; congenital band; adults.*

## 1. INTRODUCTION

Acute intestinal obstruction is classically defined as a cessation of passage of digestive contents downstream of the obstruction and is clinically manifested by an occlusive syndrome, abdominal distension and vomiting [1].

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Postoperative adhesions are the most common cause of acute bowel obstruction accounting for 75% of cases. About 50% will require surgical treatment [2]. In rare cases, such as ours, intestinal obstruction may result from a primary or congenital clamp.

Morbidity and mortality from adhesiolysis remain high, with rates around 14–45 and 4% respectively [2].

## 2. CASE REPORT

A 17-year-old youngster, with no particular pathological history, was admitted for an occlusive syndrome consisting of constipation and inability to pass gas, associated with food vomiting then bilious vomiting, evolving for 4 days before admission. On clinical examination, the patient was conscious and stable on the respiratory and hemodynamic level, the abdomen was distended and tympanic with no hepatomegaly or splenomegaly. Digital rectal examination found an empty rectal bulb.

The abdominal X-ray showed slender air-fluid levels and the abdominal CT scan showed the presence of dilation of the ileal loops upstream of a stenosis with thickening of the last ileal loop extended over a path of approximately 53mm.

The patient was operated in emergency and the surgical exploration found a flange of the small bowel and the primary mesentery responsible for a small distension of 4cm without digestive suffering (Fig 1). The operation consisted of a section of the flange and a biopsy of a mesenteric adenopathy. The postoperative course was simple with no complications.

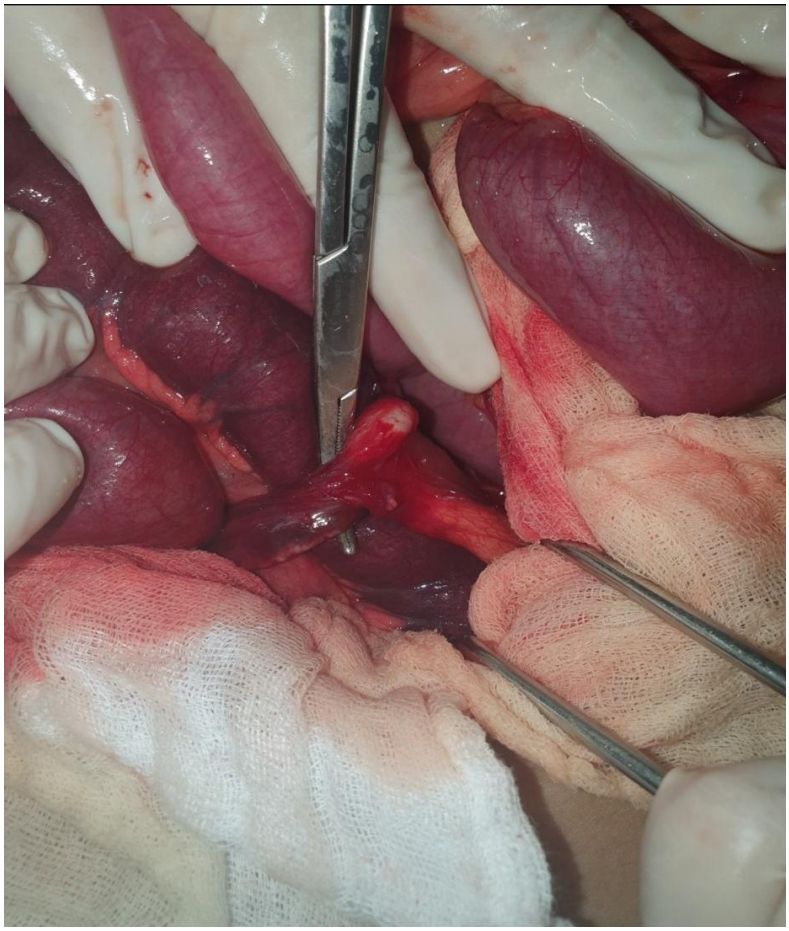

**Fig. 1. Congenital band on the small intestine and the mesentery**

## 3. DISCUSSION

Various abdominal conditions can cause intestinal obstructions. The reported prevalence of these obstructions varies according to series. About 60% of intestinal obstructions are caused by adhesions, 25% by hernia and 5–10% by neoplasm [3].

Other less common causes include intussusception, inflammatory bowel disease and volvulus [3].

The opening of the peritoneal cavity leads to the formation of potentially obstructive structures (adhesions or bands) in almost 95% of patients. With the increasing incidence of abdominal surgery, these structures are the most common cause of small bowel obstruction [4,5].

In rare cases, intestinal obstruction may result from a primary or congenital clamping. This congenital flange may be the consequence of a defect in the mating of the peritoneal layers during embryogenesis [6].

Congenital bands are a rare cause of intestinal obstruction in infancy and childhood. Obstruction is caused by entrapment of the intestine between the band and mesentery or by compression of the bowel [6].

The clinical manifestations of a congenital bridle vary from a mild symptomatic presentation to intestinal constriction that clinically translates into an occlusive syndrome consisting of constipation and inability to pass gas, associated with vomiting [7].

Paraclinical investigations can guide therapeutic management.

The laparoscopic approach has been shown to be feasible, especially when it comes to a single flange with moderate distension [8].

Conversion to laparotomy is indicated in cases of non-viable bowel identified laparoscopically and when the site of obstruction is not identified laparoscopically.

The surgical procedure can range from a simple section of a bridle to an intestinal resection depending on the exploration [9].

## 4. CONCLUSION

Congenital flanges are a very rare cause of acute intestinal obstruction, but should be considered as a possible etiology, especially in patients without prior abdominal surgery. Urgent surgical intervention is recommended to avoid possible intestinal complications such as strangulation, necrosis and perforation. In experienced hands, a laparoscopic approach can be a safe, feasible and favorable option in this situation. It should be emphasized that surgeons should not hesitate to convert to laparotomy in cases of necrotic bowel, perforation or conditions that are difficult to manage laparoscopically.

## CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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