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## Introduction

Omphalocele is a congenital condition characterized by herniation of abdominal organs, such as intestines and/or liver, through the umbilical ring, covered by peritoneum due to failure of anterior abdominal wall closure. The omphalomesenteric duct is a transient embryonic connection between the yolk sac and the midgut, which normally undergoes obliteration between the 7th and 9th weeks of gestation. Failure of obliteration may result in a Meckel's diverticulum or, rarely, fibrous bands extending from the diverticulum to the umbilicus. Here, we present a neonate with omphalocele accompanied by intestinal prolapse through a patent omphalomesenteric duct.

## Case Presentation

A male neonate, born vaginally at 32+4 weeks and weighing 2160 g to a 22-year-old G1P0 mother, was urgently referred to our unit with a preliminary diagnosis of gastroschisis, due to vaginal prolapse. No prenatal diagnosis had been made. On physical examination, an omphalocele sac measuring 5 cm in diameter, containing only intestinal loops, was observed. Additionally, through a separate opening located superiorly and close to the base of the sac, intestinal loops had prolapsed. Both the proximal and distal ends of the prolapsed bowel were visible, leading to a preoperative diagnosis of intestinal prolapse through a patent omphalomesenteric duct associated with omphalocele (Figure 1).



Fig 1. Preoperative appearance

Following anesthesia induction, the prolapsed intestinal loops were first reduced (Figure 2). The omphalocele sac was circumferentially mobilized from the skin edges and returned into the abdominal cavity. On exploration, no additional pathology was noted apart from the dilatation of the prolapsed bowel segment through a 2 cm wide omphalomesenteric duct.

Approximately 10 cm of dilated ileal loops, including the patent omphalomesenteric duct, were resected proximally and distally. After preparing the bowel ends for anastomosis, the distal end was slightly spatulated on the antimesenteric side due to a 2:1 diameter discrepancy (Figure 3). Anastomotic integrity was confirmed with no leakage and free passage.

After primary repair of the omphalocele, umbilicoplasty was performed to complete the procedure. The patient tolerated oral feeding starting on postoperative day 4, and follow-up has been uneventful (Figure 4).



Fig 2. Reduction of prolapsed bowel loops



Fig 3. Intraoperative anastomosis site



Fig 4. Postoperative day 4

## Conclusion

The prognosis of intestinal prolapse through a patent omphalomesenteric duct associated with omphalocele is variable, due to the inherent morbidity and complications of each anomaly. With early diagnosis and appropriate surgical management, successful treatment without complications is achievable.

## Conflict of Interest Statement

The authors declare no conflict of interest related to this study.