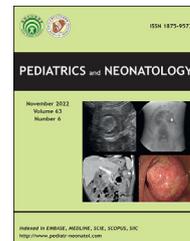


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Letter to the Editor

Internal intestinal herniation caused by mesenteric fibroadipose mass in a child

*To the editor:*

An internal intestinal herniation is a protrusion of the intestines through a normal or abnormal orifice in the peritoneum or mesentery, occasionally causing bowel obstruction by strangulation or incarceration. Here, we report a 1-year-and-6-month boy who presented with severe vomiting since the morning of January 14, 2021, with bilious contents, thereafter. The boy was previously healthy under scheduled vaccination without admission history and known cancer or hereditary familial disease. This time, he manifested numerous vomiting episodes and irritable crying soon after feeding and was brought to our emergency room. The boy's physical examination showed general ill-looking with shock signs of tachycardia (128 beats/min) and oliguria, distended abdomen, hypoactive bowel sound, and tenderness under palpation, without a peritoneal sign. Abdominal sonography showed target-like mass in the mid-upper abdomen, which differentiated the diagnosis as intussusception or malrotation with volvulus. However, emergent fluoroscopic reduction showed no typical intussusception. Further abdominal computed tomography examination demonstrated mesenteric mass in the left upper abdomen (Fig. 1A) with collapsed regional bowel loops (Fig. 1B). Subsequent emergent surgical intervention revealed intestinal adhesion with internal herniation with bowel strangulation, and bowel ischemia related to the mesenteric tumor (Fig. 1C), without the mesenteric defect, and further adhesiolysis with excision of the mesenteric tumor was performed. After the operation, the boy was cared for in the intensive care unit with

general condition stabilized in 1–2 weeks appropriated for adequate oral nutrition supplement in the general ward and was then discharged. Microscopic findings of the mass showed fibroadipose tissue with fat necrosis, calcification, and chronic inflammation. Subsequent outpatient department follow-up showed good growth and nutritional status of the boy without tumor recurrence.

Internal intestinal hernia, a cause of bowel obstruction, is uncommonly found in children and infancy.¹ The bowel configuration generally presents a saclike mass or cluster of dilated small bowel loops within an abnormal anatomic location in the setting of small bowel obstruction.² Engorgement, crowding, twisting, and stretching of mesenteric vessels will occur with bowel strangulation.³ Mass lesions are rarely found as a cause for internal herniation other than the major causes of mesenteric or omental defect. Emergent management of internal herniation is required for such an acute situation to lessen further complications and morbidity.

Contributors' statement page

Dr. Wan-Ting Chou enrolled the case, collected and analyzed the data, drafted the initial manuscript and approved the final manuscript as submitted., Dr. Pei-Chun Lin enrolled case and approved the final manuscript as submitted. Dr. Kai-Sheng Hsieh enrolled case and approved the final manuscript as submitted. Dr. Shih-Yen Chen corresponded the manuscript and approved the final manuscript as submitted.

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(A)



(B)



(C)

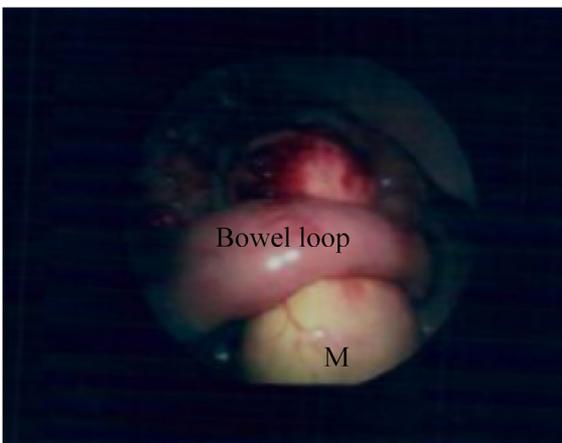


Figure 1 Abdominal computed tomography demonstrated (A) mesenteric mass (pointed by double arrowhead) in the left upper abdomen with (B) collapsed regional bowel loops (Bo) and (C) surgical intervention revealed intestinal adhesion with internal herniation with bowel strangulation related to the mesenteric tumor (M).

Declaration of competing interest

The authors declare that there are no conflicts of interest.

References

1. Gasparella M, Ferro M, Marzaro M, Benetton C, Zanatta C, Zoppellaro F, et al. Acute abdomen in children: a continuous challenge. Two cases report: meckel's diverticulum with small bowel volvulus and internal herniation related to epiploic appendagitis mimicking acute appendicitis. *Pediatr Med Chir* 2014;36:83–6. [Article in Italian].
2. Lanzetta MM, Masserelli A, Addeo G, Cozzi D, Maggialetti N, Danti G, et al. Internal hernias: a difficult diagnostic challenge. Review of CT signs and clinical findings. *Acta Biomed* 2019;90: 20–37.
3. Hu MH, Huang GS, Chen JC, Wu CT. Mesenteric defect with internal herniation in the pediatric emergency department: an unusual presentation of acute abdomen. *Pediatr Neonatol* 2014; 55:145–9.

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