

Left Paraduodenal Hernia with Bowel Strangulation

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Picture 1.



Picture 2.



Picture 3.



Picture 4.

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A 16-year-old boy presented to our emergency department with a sudden onset of diffuse abdominal pain, vomiting and bloody stool. He had no remarkable medical history except taking antispasmodic medicine for symptoms relief at the local medical department. A physical examination revealed a diffusely tender abdomen with decreased bowel sounds. The laboratory findings were significant for leukocytosis, at 39,670/ μ L. Plain abdominal X-ray showed segmental dilated small bowel loop in the right middle quadrant of the abdomen (Picture 1). Computed tomography (CT) revealed an encapsulated cluster of small bowel loops with thickening and poor enhancement of the bowel wall occupying the left middle quadrant of the abdomen. This caused obstruction of the proximal small intestine. Anterior and medial displacement of the inferior mesenteric vein was also seen (Picture 2, 3). Based on these imaging findings, the patient was diagnosed with a left paraduodenal hernia with bowel strangulation and high-grade mechanical small intestinal obstruction. Exploratory laparotomy revealed a left paraduodenal hernia with an extensive amount of strangulated and gangrenous small bowel (Picture 4). The patient's postoperative hospital course was uneventful and without complications.

An internal hernia is unusual and can be difficult to diagnose because of the nonspecific clinical presentation (1). Left paraduodenal hernias can usually be reduced manually without difficulty, whereas right paraduodenal hernias are sometimes complicated by strangulation (2). We present a

rare case of left paraduodenal hernia with bowel strangulation and small intestinal obstruction. Multidetector computed tomography (MDCT) with three-dimensional images showed an encapsulated sac containing small bowel loops with poorly enhanced thickening of the bowel wall occupying the left middle quadrant of the abdomen and anteromedial displacement of the inferior mesenteric vein by the sac. The CT findings are pathognomonic signs of left paraduodenal hernia with bowel strangulation (3). Familiarity with the CT appearances of internal hernias therefore allows for an accurate and specific preoperative diagnosis.

The authors state that they have no Conflict of Interest (COI).

References

1. Lin CH, Ho YJ, Lin WC. Preoperative diagnosis of right paraduodenal hernia by multidetector computed tomography. *J Formos Med Assoc* **107**: 500-504, 2008.
2. Parmar BP, Parmar RS. Laparoscopic management of left paraduodenal hernia. *J Minim Access Surg* **6**: 122-124, 2010.
3. Doishita S, Takeshita T, Uchima Y, et al. Internal hernias in the era of multidetector CT: correlation of imaging and surgical findings. *Radiographics* **36**: 88-106, 2016.

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