

# Inverted Meckel's diverticulum presenting as iron deficiency anemia

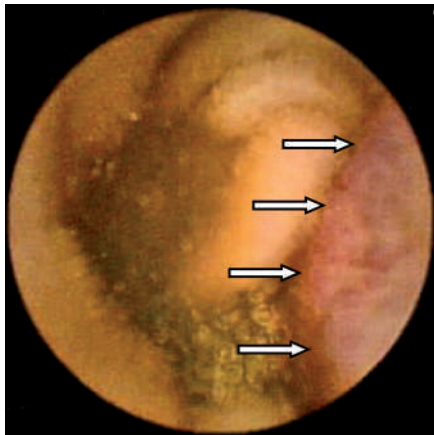


Figure 1 Video capsule endoscopy revealed a pink-colored, bulging mass (arrows) in the ileum, which we suspected to be a tumor.

A 48-year-old woman presented with fatigue, dyspnea on exertion, and mild abdominal bloating. Physical examination was unremarkable, with a soft nontender abdomen. Laboratory evaluation revealed iron deficiency anemia, with a hemoglobin level of 10.2 g/dl (normal range 12–16 g/dl) and a plasma ferritin of 8 ng/ml (normal range 10–291 ng/ml). As part of the investigative work-up for her anemia, colonoscopy and esophagogastroduodenoscopy with duodenal biopsies were performed and no abnormalities were found. Capsule endoscopy revealed an intraluminal mass in the distal ileum, which we suspected to be a tumor (Video 1, Figure 1). Computed tomography was performed to further define the ileal mass, and the scan confirmed the presence of an endoluminal mass in the distal ileum (Figure 2).

An exploratory laparotomy was performed because of the patient's symptomatic anemia and the suspected small-bowel neoplasm. A 5-cm intraluminal



Figure 2 A computed tomographic scan showed an endoluminal mass (arrow) in the distal ileum, associated with an intussusception and partial small-bowel obstruction.

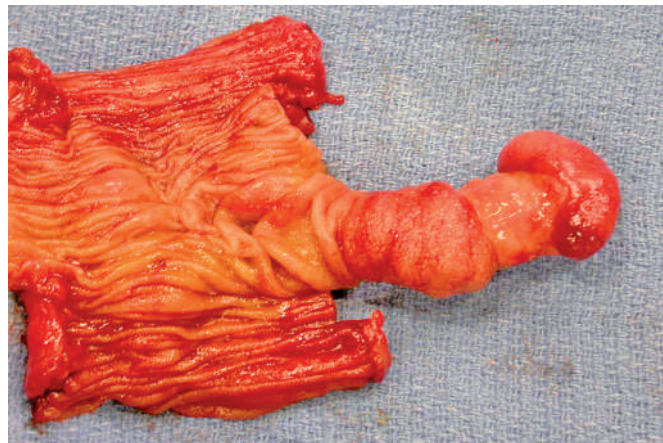


Figure 3 A short ileal segment was resected and was found to contain an inverted Meckel's diverticulum measuring 5 cm in length.

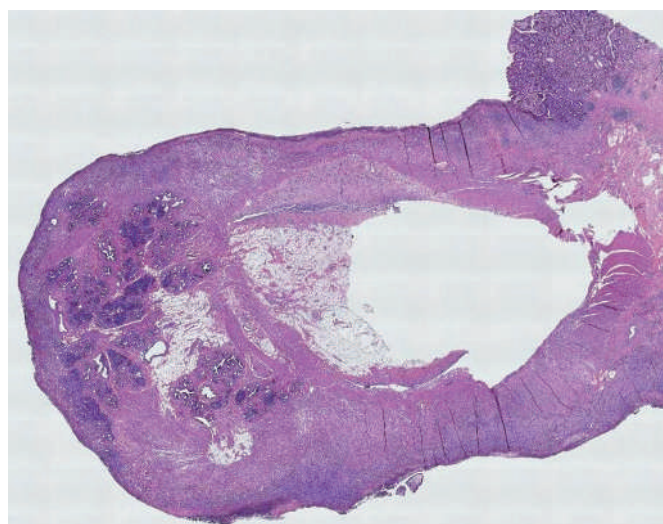


Figure 4 Pathological investigation revealed extensive surface ulceration and heterotopic pancreatic tissue, findings consistent with a Meckel's diverticulum (hematoxylin & eosin, original magnification  $\times 2$ ).

## Video 1

Video capsule endoscopy demonstrated a pink-colored mass protruding into the ileal lumen. The mass can be seen in the upper right-hand corner of the screen.

mass was palpated in the distal ileum. A point of invagination was seen on the antimesenteric border of the mass, consistent with an inverted Meckel's diverticulum. A short segment of bowel was resected (Figure 3). Histopathological examination of the specimen showed ulceration and heterotopic pancreatic tissue (Figure 4). The patient's anemia and symptoms resolved after the resection procedure.

Meckel's diverticulum usually presents with bleeding, obstruction, or diverticulitis [1]. This patient, on the other hand, presented with iron deficiency anemia, without any visible bleeding or significant gastrointestinal symptoms. Iron deficiency seems to be a most unusual presentation of Meckel's diverticulum [2]. This case illustrates this rare clinical presentation, highlighting the utility of video capsule endoscopy in the evaluation of anemia. Another unusual aspect of this case was the tumor-like appearance of the inverted Meckel's diverticulum on capsule endoscopy. The increasing use of video capsule endoscopy will probably lead to more frequent diagnosis of Meckel's diverticulum.

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## References

<sup>1</sup> Park JJ, Wolff BG, Tollefson MK et al. Meckel diverticulum: the Mayo Clinic experience with 1476 patients (1950–2002). *Ann Surg* 2005; 241: 529–533

<sup>2</sup> Puligandla PS, Becker L, Driman D et al. Inverted Meckel's diverticulum presenting as chronic anemia: case report and literature review. *Can J Surg* 2001; 44: 458–459

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