

Capsule endoscopic detection of bleeding Meckel's diverticulum, with capsule retention in the diverticulum



Fig. 1 Video capsule endoscopy demonstrating stenotic lumen and shallow ulcers with oozing at the edge of the stenosis.

A 20-year-old man was admitted to hospital with episodes of passing painless bloody stools and syncope. When he arrived, he was in a state of shock with severe dehydration. Laboratory data showed a hemoglobin (Hb) level of 8.6 g/dL. Esophagogastroduodenoscopy and colonoscopy did not show the cause of bleeding.

Capsule endoscopy (PillCam SB 2; Given Imaging, Yoqneam, Israel) was then carried out. The video sequence showed a stenotic structure of the lower ileum and shallow ulcers with oozing on the edge of the stenosis (● **Fig. 1**).

Gradually, the area around the capsule filled with blood, and the capsule stayed in exactly the same position for the last 3.5 hours of the battery's life.

To confirm the diagnosis and collect the capsule, enteroscopy with a double-balloon enteroscope (EN-450P5/20; Fujinon, Saitama, Japan) was performed under fluoroscopic guidance via the anal route 1 day after capsule endoscopy. A large diverticulum, in which there was a shallow ulcer and with stenosis in the middle, was found about 60 cm proximal to the ileocecal valve (● **Fig. 2a**).

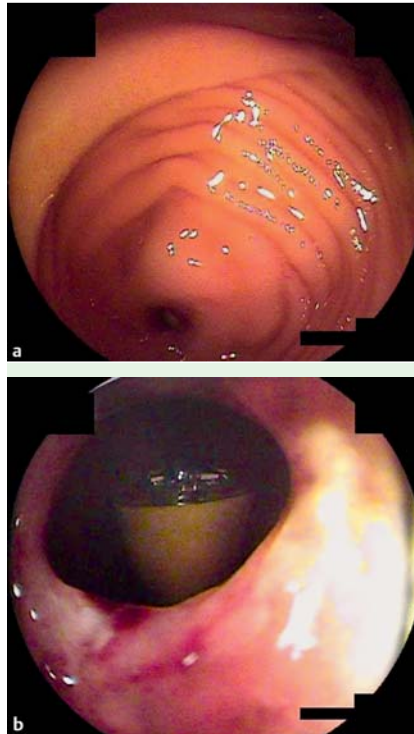


Fig. 2 **a** Double-balloon enteroscopy looking down the diverticulum about 60 cm proximal to the ileocecal valve. **b** The capsule is retained at the bottom of the diverticulum, and a shallow ulcer is on the edge of the stenosis.

The capsule was retained at the bottom of the diverticulum (● **Figs. 2b** and **3a**) and was successfully extracted by gripping it with a polypectomy snare.

A 10 × 4-cm diverticulum was clearly indicated through a fluoroscope by the double-contrast method with barium and air (● **Fig. 3b**). The diameter of the stenotic lumen was approximately 9 mm. The diagnosis of a Meckel's diverticulum was made. To our knowledge, this is the first report of capsule endoscopy providing images of the inside of a Meckel's diverticulum [1–5].

A 10 × 4-cm inflamed Meckel's diverticulum approximately 60 cm distal to the

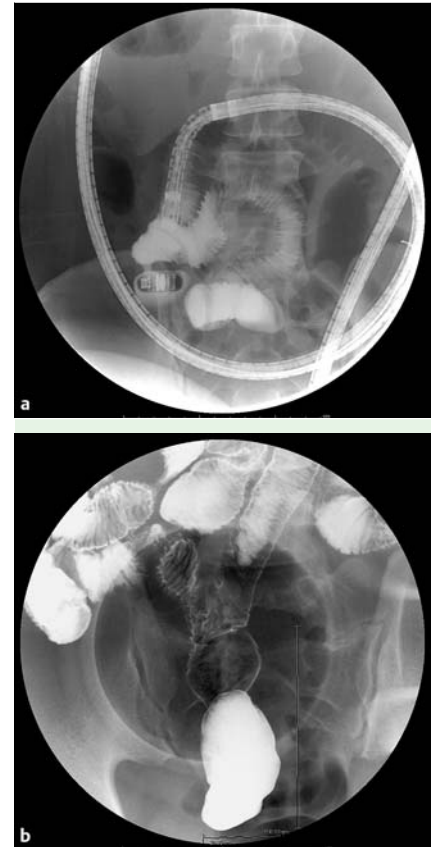


Fig. 3 **a** Contrast material was injected during double-balloon enteroscopy. The capsule appears in the diverticulum. **b** The diverticulum is clearly revealed through a fluoroscope by the double-contrast method with barium and air, and is approximately 10 × 4 cm.

ileocecal valve was confirmed on later laparotomic diverticulectomy (● **Fig. 4**). The resected specimen confirmed the presence of inflamed, congested small-bowel mucosa with focal ulceration within the diverticulum penetrating all layers of the bowel wall. The postoperative course was uneventful.

Competing interests: None

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Fig. 4 A 10 × 4-cm inflamed Meckel's diverticulum approximately 60 cm distal to the ileocecal valve was confirmed on later laparotomic diverticulectomy.

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