

## Retrieval of two retained endoscopy capsules with retrograde double-balloon enteroscopy in a patient with a history of complicated small-bowel disease

Double-balloon enteroscopy (DBE) is a novel method that makes it possible to carry out a number of treatment procedures in the small bowel, including the removal of foreign bodies [1,2]. To date, case reports have been published on three patients in whom entrapped endoscopy capsules were recovered using antegrade DBE [3,4]. We report here a case of successful extraction of two retained endoscopy capsules using retrograde DBE in a patient with a history of complicated small-bowel disease.

A 43-year-old man was referred to the hospital for removal of two endoscopy capsules retained in the distal small bowel. His medical history included surgery for a Meckel's diverticulum in 1976, repeated laparotomies due to complications, and limited small-bowel resections resulting in a jejunocolostomy. In 2003, a circular stenosis in the jejunocolostomy was documented. Due to subsequent persistent iron-deficiency anemia, extensive diagnostic work-up was repeated, including two capsule endoscopy procedures in May 2004 and October 2005, but a bleeding source was not identified. A radiographic check-up after the second procedure showed that the two endoscopy capsules had been retained in the distal small bowel.

Antegrade DBE (Fujinon EN-450P5/20) was first carried out. This failed to identify the capsules, due to increasing amounts of food remnants, but identified erosions suspicious for Crohn's disease. After colonoscopy and balloon dilation of the stenosis, retrograde DBE was carried out and identified the two capsules at a distance of 60 cm proximal to the anastomosis (Figure 1).

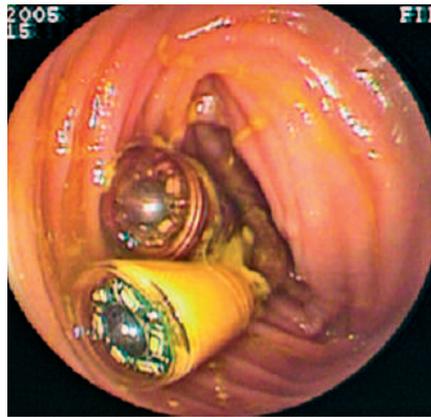


Figure 1 Endoscopic view of the two endoscopy capsules retained in the distal small bowel.

The first endoscopy capsule was grasped with a polypectomy snare (Figure 2), pulled through the anastomosis, and dropped into the ascending colon. The second capsule was retrieved in the same manner and completely extracted through the colon. The patient left the hospital the next day and excreted the first capsule 3 days later. With oral budesonide treatment, the patient remained asymptomatic and had normal blood counts for the following 6 weeks.

Endoscopy\_UCTN\_Code\_CPL\_1AI\_2AB  
Endoscopy\_UCTN\_Code\_TTT\_1AP\_2AD

**S. Miehle, A.-K. Tausche, S. Brückner, D. Aust, A. Morgner, A. Madisch**  
Dept. of Medicine I and Institute of Pathology, Technical University of Dresden Hospital, Dresden, Germany.

### References

- Yamamoto H, Kita H, Sunada K et al. Clinical outcomes of double-balloon enteroscopy for the diagnosis and treatment of small-intestinal diseases. *Clin Gastroenterol Hepatol* 2004; 2: 1010–1016

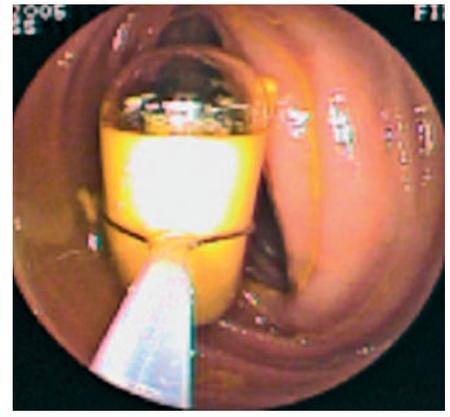


Figure 2 Capture and extraction of the first endoscopy capsule during retrograde double-balloon enteroscopy, using a polypectomy snare.

- May A, Nachbar L, Ell C. Double-balloon enteroscopy (push-and-pull enteroscopy) of the small bowel: feasibility and diagnostic and therapeutic yield in patients with suspected small bowel disease. *Gastrointest Endosc* 2005; 62: 62–70
- May A, Nachbar L, Ell C. Extraction of entrapped capsules from the small bowel by means of push-and-pull enteroscopy with the double-balloon technique. *Endoscopy* 2005; 37: 591–593
- Lee BI, Choi H, Choi KY et al. Retrieval of a retained capsule endoscope by double-balloon enteroscopy. *Gastrointest Endosc* 2005; 62: 463–465

### Corresponding Author

**S. Miehle, M. D.**  
Dept. of Medicine I  
Technical University of Dresden Hospital  
Fetscherstrasse 74  
01307 Dresden  
Germany  
Fax: +49-351-4585859  
Email: stephan.miehle@uniklinikum-dresden.de