# Retention of endoscopic capsule in an umbilical hernia

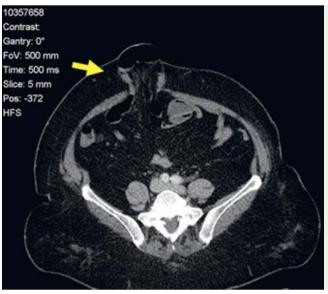


Fig. 1 Computed tomography (CT) enteroclysis showing the umbilical hernia (yellow arrow) with a bowel loop within.

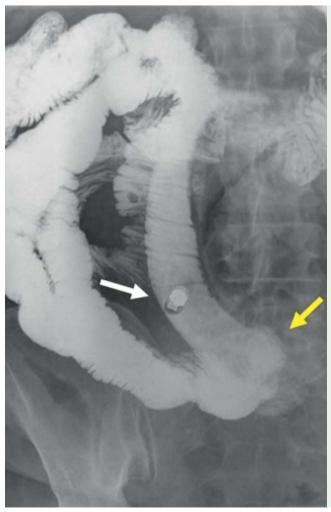
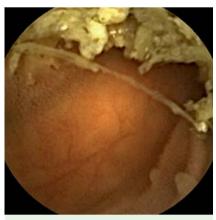


Fig. 3 Small-bowel radiograph with water-soluble contrast showing retained capsule (white arrow) in relation to an umbilical hernia (yellow arrow).



**Fig. 2** Image captured by capsule endoscopy at the site of stagnation.

Capsule endoscopy is a common method for the investigation of obscure gastro-intestinal bleeding. Despite the reduced risk of complications, capsule retention is the most frequent complication, occurring in 1%-3% of cases [1].

A 64-year-old woman, obese and hypertensive, with indeterminate colitis in remission for several years, presented to the emergency department with hematochezia. She reported a history of recent surgery to varicose veins of the lower limbs and post-operative treatment with diclofenac. On physical examination, she appeared pale; the rest of the examination was unremarkable except for a reducible incoercible umbilical hernia. Analytically, the patient presented hemoglobin of 5.6 g/dL (12 – 16 g/dL).

Upper endoscopy and colonoscopy showed no lesions, and the patient was admitted for investigation. The computed tomography (CT) enteroclysis was normal except for an umbilical hernia with a bowel loop within, without signs of strangulation ( Fig. 1).

Capsule endoscopy (PillCam SB 2; Given Imaging, Yoqneam, Israel) was then performed; it showed no changes in the mucosa up to the jejunum, where after 1 hour and 20 minutes the capsule remained stagnant until the end of the battery's life ( Fig. 2).

The patient remained asymptomatic. A small-bowel radiograph with water-soluble contrast showed the capsule retained

in the umbilical hernia and ruled out stenosis or signs of small-bowel obstruction (**> Fig. 3**).

After 16 days of capsule retention, a hernioplasty was performed and the capsule was spontaneously expelled afterwards. Retention of an endoscopic capsule is a rare complication. There are a few case reports of capsule retention in different types of digestive diverticulum [2–4] but, to the best of our knowledge, this is the first case of capsule retention in an umbilical hernia. Current recommendations do not consider these entities as contraindications for capsule endoscopy [5], but the gastroenterologist should keep in mind the potentially increased risk of capsule retention.

Endoscopy\_UCTN\_Code\_CPL\_1AI\_2AB

Competing interests: None

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### **Bibliography**

**DOI** 10.1055/s-0030-1256140 Endoscopy 2011; 43: E111 – E112 © Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

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