Detachment of an enteroscope spiral fragment during anterograde motorized spiral enteroscopy

Motorized spiral enteroscopy is a recent technology for deep enteroscopy that uses a 3 cm diameter spiral attached to the tip of an endoscope to facilitate examination of the small bowel. Introduced a few years ago, it has since proved its efficacy and safety in prospective studies [1]. We report the detachment of a spiral ring during motorized spiral enteroscopy during small-bowel tumor examination. The enteroscopy was performed in a 54-year-old woman following a suspicious image (ulceration) detected in the proximal jejunum on video capsule endoscopy performed for anemia. An ulcerated lesion was identified in the proximal jejunum, without stenosis, involving half of the small-bowel circumference (Fig. 1) and located about three intestinal loops down toward the duodenjejunal junction. The operator tried to progress further below this lesion, but the spiral became embedded in the tumor, impairing further progression (Video 1). Gentle removal of the endoscope was performed by backward rotation of the spiral; however, one ring of the spiral had become detached from the tube and remained embedded in the small-bowel tumor (Fig. 2a). In an attempt to retrieve this fragment, the operator used a double-balloon enteroscope, advancing beyond the tumor to grasp the broken ring using a 25-mm snare (Fig. 2b); however, the ring could not be drawn back through the lesion (Video 1). After this endoscopy, the patient received 1 L of colonic polyethylene glycol preparation to encourage migration of the ring into the cecum, which was confirmed on computed tomography scan 24 hours later (Fig. 3); evacuation occurred a few days later without any symptoms. Histology confirmed the small-bowel adenocarcinoma, and the patient underwent surgery.

This situation can be explained by a spiral defect but also suggests that attempting to pass through a neoplastic (even limited) stenosis in a small-bowel tumor may be a risky procedure with a spiral enteroscope.
Competing interests

The authors declare that they have no conflict of interest.

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Fig. 3 The fragment was located in the cecum the next day.