Motorized spiral enteroscopy: this is the end my friend?

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To the Editor,

Endoscopic devices have a history of being launched as the next big thing, and subsequently being retrieved from the marked because of efficacy or safety concerns. The Shapelock overtube to overcome sigmoid loop formation during colonoscopy and the Enteryx implant to reduce gastro-oesophageal reflux are only two examples (1,2). They were voluntarily removed by the manufacturers because of serious adverse events. These were accessory devices to facilitate endoscopy or to perform endoscopic therapeutic interventions.

However, the global endoscopy community has now been informed about the manufacturer's decision to remove an endoscope, the motorized spiral enteroscope (MSE), from the market because of safety concerns. It is a colonoscope with an integrated rotational motor on which a spiral single-use overtube is locked. A foot pedal activates the clockwise and anti-clockwise rotations of the overtube allowing forward and backward progression throughout the gastrointestinal tract. As a safety measure, the motor stops automatically when the overtube encounters too much friction. Despite early enthusiasm for this device allowing unidirectional panenteroscopy in a timely manner, outclassing other device-assisted enteroscopy systems, recent reports stated that they should be considered as complementary instead of competitive enteroscopy systems (3-5). The drop that broke the camel's back appeared to be the death of a patient with a blocked overtube inside the oesophagus. Death related to the use of an endoscopic device is inacceptable and the manufacturer's decision may therefore be justified. Moreover, apart from this fatal case, other system defects have been reported, mainly due to accidental overtube detachment in the oesophagus during the withdrawal phase of the endoscopic procedure (6).

Instead of throwing the baby out with the bathwater, MSE merits further development and improvement, based on the positive outcomes of recent single- and multi-centre publications (3,5). Apart from insufficient practical MSE training under supervision, specific endoscope design features may also explain the current efficacy and safety concerns. It is an enteroscope with the technical behaviour of a colonoscope used in a long and tortuous fragile small bowel, and the 31.1mm wide spiral overtube is very large considering the diameter of some gastrointestinal segments, especially the oesophagus (Figure 1). Using a slim enteroscope behaving like a

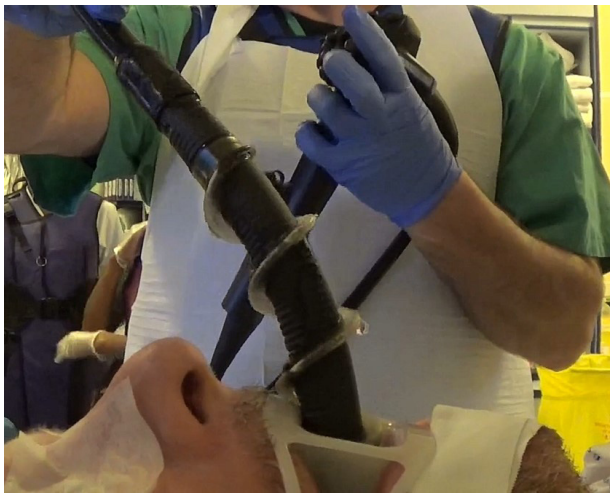

Figure 1. — Oesophageal insertion of the motorized spiral enteroscope loaded with the spiral overtube in a patient under general anesthesia with endotracheal intubation.

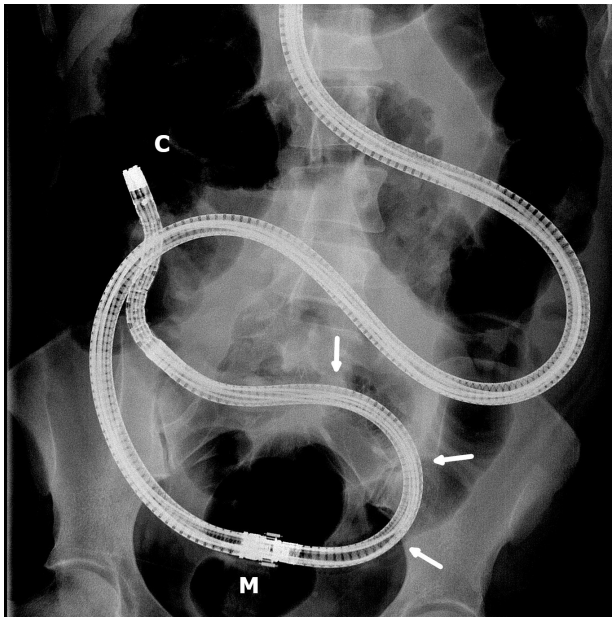

Figure 2. — Fluoroscopic image of antegrade panenteroscopy reaching the caecum (C). The integrated motor in the enteroscope is clearly visible (M) as are the fins of the spiral overtube (arrows).

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gastroscope instead of a colonoscope and reduction of the overtube diameter may help to overcome some of the encountered problems. It will perhaps no longer allow unidirectional panenteroscopy (Figure 2). But who benefits the most from unidirectional panenteroscopy, the endoscopist's self-esteem or the patient's health ?

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