

Efficient retrograde enteroscopy using a novel through-the-scope balloon

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Deep enteroscopy can be achieved via double balloon, single balloon, and spiral enteroscopy [1]. Drawbacks of these systems include the need for a dedicated enteroscope, and consequently, specialized accessories [2]. In addition, a special skill set is required [3]. A new through-the-scope balloon catheter (NaviAid™ AB, SMART Medical Systems Ltd., Ra'anana, Israel) allows enteroscopy with a standard adult colonoscope. This device permits advancement deep into the small bowel in either an antegrade or retrograde approach. It consists of a single-use balloon catheter which is inserted through the working channel of the colonoscope (Fig. 1). The catheter is advanced ahead of the endoscope, including safely around corners, into the small bowel in a blind fashion. Once ahead of the endoscope, the balloon is inflated, anchors onto the small bowel

and acts as a rail on which the endoscope is advanced. The device may be removed from the endoscope's working channel during procedure to allow biopsy and therapy, and can be again re-inserted to facilitate further advancement.

A 72-year-old female presented with a 6-month-history of abdominal pain, iron deficiency anemia, and imaging evidence of mural thickening of the mid to distal ileum. Through-the-scope balloon catheter-assisted retrograde enteroscopy was performed as the initial endoscopic investigation (Video 1 in supplementary material). The balloon catheter was deployed immediately after the endoscope intubated the terminal ileum. The endoscope was inserted 1 m beyond the ileocecal valve and the time taken to reach the inflamed area from the anus was only 18 min. Further advancement was limited by an

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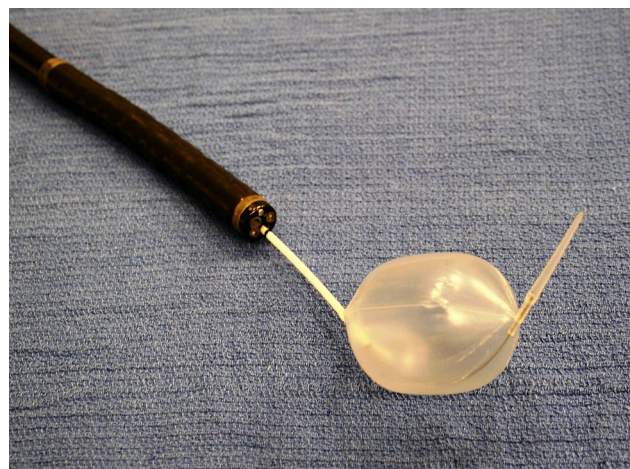


Fig. 1 The balloon can inflate up to 40 mm in diameter and is attached to a 3.5 m single-use catheter that is inserted through the working channel of the colonoscope

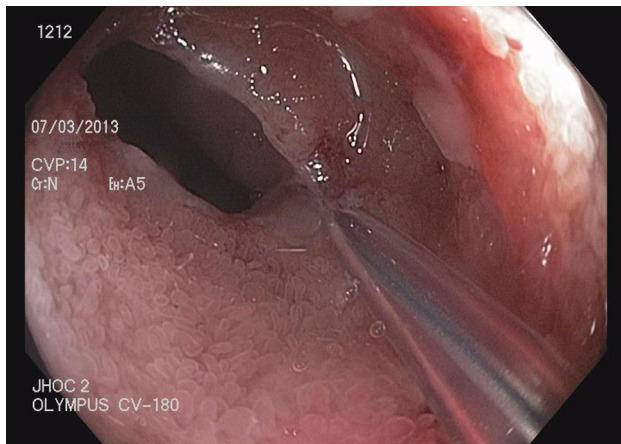


Fig. 2 Endoscope unable to pass through the fibrotic stricture. The surrounding mucosa is edematous, ulcerated and friable consistent with small bowel Crohn's disease

inflammatory stricture (Fig. 2). Biopsies were performed and confirmed the clinical suspicion of Crohn's ileitis.

This new enteroscopy platform permits rapid advancement through the small bowel and has a fast learning curve. Additionally, having the 3.8 mm working channel of the colonoscope allows for therapeutic interventions if necessary. Furthermore, this through-the-scope balloon system confers a major advantage over other enteroscopy systems during retrograde enteroscopy as a standard colonoscope is

used allowing for easy navigation through the colon into the ileum [4].

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