

Treatment of a completely obstructed colonic anastomotic stricture using a CT-guided endoscopic rendezvous technique



Fig. 1 The first attempt at endoscopic dilatation failed because it was not certain that the two endoscopes were facing each other in this rendezvous procedure.



Fig. 2 Endoscopic view of the stenotic anastomosis from below.



Fig. 3 CT-guided fluoroscopy shows the two endoscopes exactly facing each other.



Fig. 4 Balloon dilatation following successful recanalization of the stenosis.



Fig. 5 Barium enema before the planned ileostomy takedown shows a residual stricture with good passage.

Although anastomotic strictures are a recognized complication of colorectal surgery, complete colonic anastomotic obstruction from benign disease is rare and there are few reports of endoscopic management [1–4]. Here, we describe a case of successful endoscopic treatment using a novel combined antegrade-retrograde endoscopic rendezvous technique facilitated by CT-guided fluoroscopy.

A 73-year-old man presented to us with complete anastomotic obstruction following deep anterior resection for UICC stage III rectal carcinoma complicated by an anastomotic leak that had been treated by endoscopic sponge placement in the pararectal cavity [5]. We attempted to employ a rendezvous method to perforate the stenosis as described previously [1, 3, 4], with a colonoscope passed through the existing

loop ileostomy and an upper endoscope advanced to the stenosis in a retrograde fashion. The scopes, under fluoroscopy, were seen to be in proximity to each other, but a “kissing position” could not be attained (► Fig. 1).

This was because of the J-shaped configuration of the anastomosis with two dead ends on its lower aspect, neither of which could be positively identified as the anastomotic stenosis in question (► Fig. 2).

Administration of barium through both endoscopes, in addition, revealed a nonlinear alignment of the colon and showed that the oral and aboral ends were separated only by a fibrous membrane (► Fig. 1).

To demonstrate the exact position of the endoscopes in a three-dimensional fashion we repeated the procedure with CT guidance. CT fluoroscopy confirmed that the tips were facing each other when the lower endoscope was placed in one of the two dead ends (► Fig. 3).

Under CT-fluoroscopic and transillumination guidance, the fibrous septum was penetrated using a biopsy forceps passed through the accessory channel of the retrograde endoscope. After visualization of the forceps by the antegrade colonoscope, a wire-guided “through-the-scope” balloon was placed at the site of the stricture and used to dilate it sequentially to 12 mm (► Fig. 4).

Within 1 month following this first intervention, the stenosis was dilated up to 20 mm in a series of five endoscopic sessions. Clinically, the patient was well with normal defecation. Barium enema confirmed good passage (► Fig. 5) and the ileostomy was closed 6 weeks after the CT-guided endoscopic intervention.

We believe that CT fluoroscopy guidance adds a measure of safety by allowing the endoscopist to visualize the stenosis and the position of the endoscopes three-dimensionally in complex situations where unambiguous identification of the stenosis is not possible in conventional fluoroscopy. Limitations of the technique include the need for either instrument exchange or a second endoscopy unit and a pre-existing ostomy to perform the rendezvous procedure.

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Competing interests: None

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