Technical Note

Retrieval of Migrated Colonic Stents from the Rectum

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Abstract
Palliative stenting of malignant colonic obstruction may be complicated by stent migration. Stents that migrate into the rectum cannot be passed with bowel movements and frequently cause obstruction. We present two simple means to retrieve stents from the rectum using fluoroscopic guidance. These techniques were used successfully without complication in four stent migrations.

Key words: Colon, malignant stricture — Stents, complication — Stent migration

Since its first description by Tejero et al. [1] and Mainar et al. [2] fluoroscopically guided stenting of colonic strictures has gained considerable interest. Stent migration is a complication of colonic stenting. In our current series of 15 patients who received Wallstents (Schneider Inc., Minneapolis, MN, USA) we encountered five (26%) stent migrations, four into the rectum. We present our retrieval techniques for the latter.

Retrieval Techniques

We use two techniques for retrieving stents from the rectum. Our first choice is a catheter technique, the second is retrieval by a Kelly clamp.

Catheter Technique

First, a rectal speculum, as used in standard colonoscopy, is inserted transanally (Figs. 1, 2). A 0.035” Bentson catheter assembly (multipurpose catheter, Cook

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Fig. 2. Stent retrieval technique using a catheter. A Dislodged Wallstent (arrow) in the rectum. B In vitro photograph shows an 8 Fr Judkins left guiding catheter with a 0.035" Amplatz guidewire advanced through the lumen of the speculum and the 22 × 45-mm Wallstent. C Using the guiding catheter, the guidewire has been redirected back into the speculum. The catheter is then removed leaving the guidewire in place. D A steady and careful pull on both ends of the guidewire allows retraction of the stent into the speculum and subsequent removal.

Fig. 3. A A 22 × 70-mm Wallstent has been placed across extrinsic compression of the rectosigmoid colon by metastatic prostate cancer. Excessive barium is seen in the transverse and descending colon. B Six hours later an abdominal film reveals migration of the stent into the rectum.

Inc., Bloomington, IN, USA) is advanced through the stent. Usually, the stent will be aligned longitudinally along the rectum. If not, with gentle manipulation the stent can be properly oriented once the wire and catheter are advanced through it. Then the angiographic catheter is exchanged for a 7 or 8 Fr Judkins left coronary catheter (Cordis, Miami, FL, USA) which is advanced over the guidewire until it exits the distal end of the stent. The catheter is directed to the side and then towards the rectal speculum. The Bentson guidewire, still inside the Judkins catheter, is exchanged for an Amplatz stiff guidewire (Meditech, Boston Scientific, Natick, MA, USA). Then both are advanced toward and into the speculum with the guidewire tip leading. The catheter is then removed. With the speculum held in place, both ends of the guidewire were pulled, collapsing the stent (Fig. 3). This allows for removal of the stent with the midsection as the leading edge. A follow-up Gastrografin enema (Bristol-Meyers Squibb Inc., Princeton, NJ, USA) is performed to rule out perforation.

Forceps Technique

A Kelly clamp, aided by the operator’s index finger, is inserted transanally and is used to grasp the stent under fluoroscopic guidance (Fig. 4). Because the distal ends of the Wallstent separate or fray, the stent cannot be directly pulled out. Instead, a gentle rotating motion of the Kelly clamp, assisted by a finger or other blunt object, is performed while pulling the stent out. There is