Endoscopic detorsion for sigmoid volvulus using unsedated water-immersion colonoscopy

We report a simple method of endoscopic detorsion for sigmoid volvulus using unsedated water-immersion colonoscopy, which we currently use in the majority of our cases.

Importantly, volvulus detorsion with a colonoscope should be attempted only in patients with an absence of necrotic findings. Endoscopic detorsion is performed without fluoroscopic guidance. A cap or hood attached to the tip of the colonoscope, which maintains a distance between the instrument and the colonic wall, so keeping the luminal direction in view, is used to aid insertion [1]. The water-immersion method involves water infusion in lieu of air insufflation as the principal modality to decrease pain during insertion of the colonoscope [2–4]. Water is infused into the rectum through the biopsy port of the scope using two 50-mL disposable syringes or intermittently infused using a water-jet system. Removal of residual luminal air diminishes the boundary and improves the view. Water accumulates around the tip of the colonoscope and collapses the colon as previously described [2, 4].

The colonoscope is inserted with a twisting motion, according to the torsion of the sigmoid colon, and is typically passed under direct observation through the normal-caliber colon to the point of obstruction. This point classically appears as a termination of the lumen in a “whirl sign” [5]. Care needs to be taken to avoid air insufflation while gently attempting to pass the scope through the twisted segment (Fig. 1a). If this process is successful, the distended proximal segment (Fig. 1b) is decompressed using endoscopic suction, which often results in spontaneous detorsion. When liquid or soft stools flow out, the success of endoscopic detorsion is confirmed.

In our experience the success rate of this treatment has been 100%, therefore we believe an endoscopic detorsion is a reasonable treatment for elderly patients with sigmoid volvulus.

Competing interests: None

Fig. 1 Endoscopic appearances of a sigmoid volvulus showing: a the mucosa at the point of twisting; b the dilated lumen in the twisted segment of sigmoid colon.
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