Closure of large colonic defects by use of submucosal buttressed clips

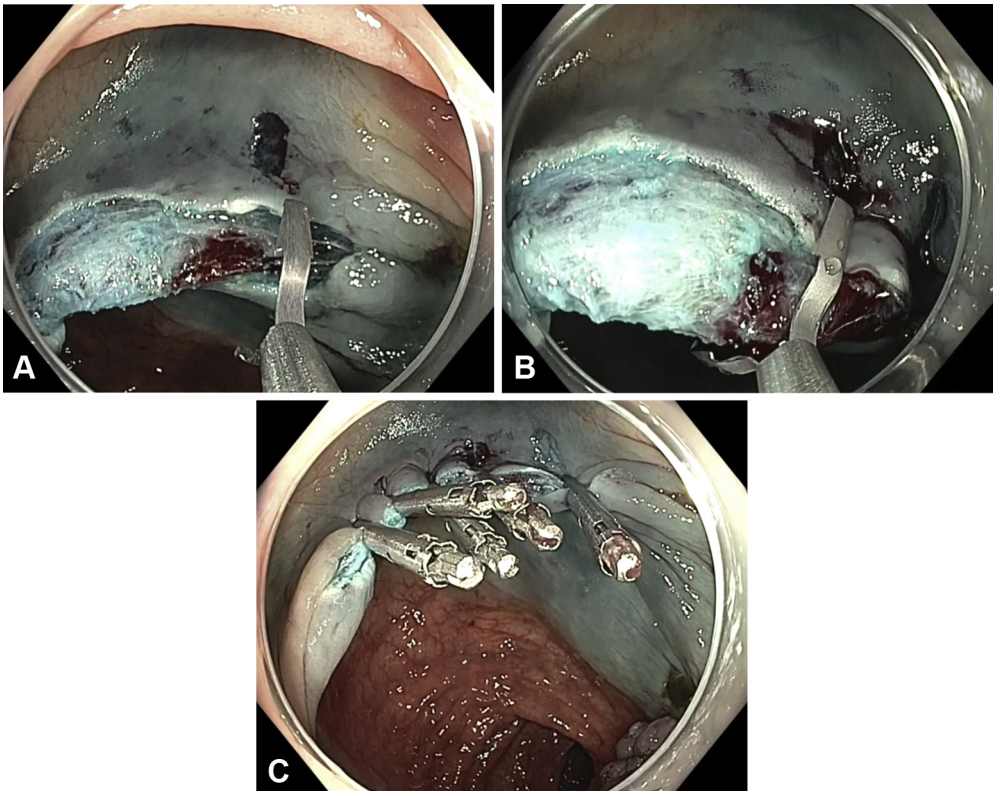

Figure 1. A, Exposure of submucosa at each clip target site, with the use of standard biopsy forceps, about 5 mm away from resection margin. **B,** Anchoring of clip into the submucosa to attain a healthy grasp of tissue, including the margins. **C,** Secure closure of defect by the submucosal buttressed clipping technique.

Clip closure of large defects after endoscopic resection is often performed to prevent or treat bleeding and perforation. Clip closure may be difficult in the colon because the mucosa is slippery and weak.

We describe a novel submucosal buttressed technique of endoscopic defect closure wherein, by exposure of the submucosa at the clip target site, a more reliable and durable clip closure is achieved (Fig. 1; Video 1, available online at www.VideoGIE.org).

The technique uses a standard or small biopsy forceps to expose the submucosa at each clip target site, about 5 mm away from the resection margin. The clips are then anchored into the exposed submucosa on each side of the defect, to attain a healthy grasp of tissue, including the margins, which provides secure closure that is unlikely to fall apart with gas insufflation or colonic peristalsis.

This technique is helpful even when deep muscle injury or perforation after endoscopic resection is encountered. In such scenarios, it is often best to place clips on the adjacent submucosa to approximate the defect edges, followed by closure of the entire resection margins with submucosal buttressed clips, which will provide reliable closure of the perforation site.

It is not necessary to exclusively use submucosal buttressed clipping while closing endoscopic resection defects. Two or 3 clips placed with this submucosal buttressed technique allow secure approximation of the resection margins and are often sufficient to make additional standard clipping effective. Large colon endoscopic resection sites are ideal for the application of this technique, which uses simple equipment (biopsy forceps) and does not require any specialized training.

Written transcript of the video audio is available online at www.VideoGIE.org.

Through this video, we demonstrate that submucosal buttressed clips may allow reliable and durable closure of large and giant endoscopic resection sites. The technique is rapid and does not require specialized equipment or training.

DISCLOSURE

Dr Friedland is a consultant for C2 Therapeutics and Boston Scientific. The other author disclosed no financial relationships relevant to this publication.

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