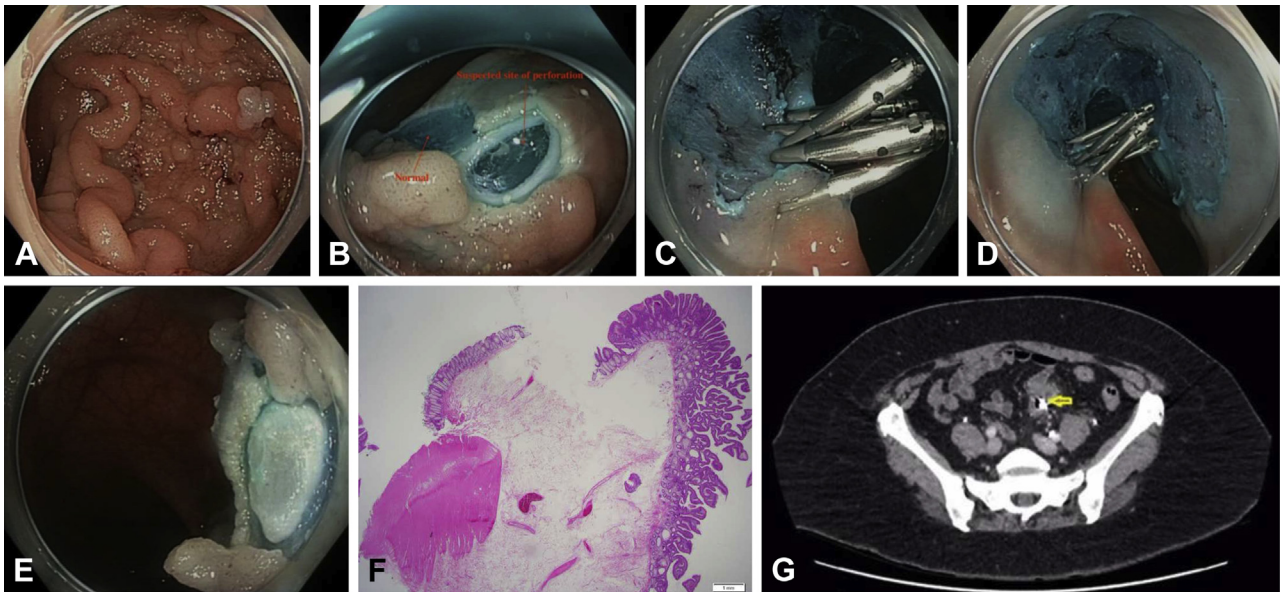


## False sense of security: a case of retroperitoneal perforation after colonic EMR



**Figure 1.** **A**, Laterally spreading tumor at the rectosigmoid junction. **B**, Suspected site of perforation, with a whitish circular ring and bluish base. **C**, Closure of perforation with 6 hemoclips. **D**, Resection of remainder of the polyp. **E**, Resected specimen showing the target sign. **F**, Histology slide showing the muscularis propria, confirming the perforation. **G**, Abdominal CT view showing no evidence of perforation. *Yellow arrow* indicates endoscopic clips.

A 61-year-old woman was referred to our center for EMR of a large laterally spreading tumor (LST) at the rectosigmoid junction (Fig. 1A). The tumor measured approximately 8 cm and involved more than 75% of the circumference of the colon. This lesion was detected by surveillance colonoscopy after positive fecal occult blood test results. The patient had multiple comorbidities, including type 2 diabetes mellitus, hypertension, previous transient ischemic attack, and hypothyroidism. The patient was taking dual anti-platelet therapy, and as a routine precaution, clopidogrel was stopped 10 days before the procedure, although aspirin was continued.

This procedure was conducted with the patient under conscious sedation with monitored anesthetic care. The EMR was done in the usual manner, by use of the “lift and resect” principle, and the lesion was resected in a piecemeal fashion. However, during the procedure, we noted an area suggestive of possible perforation (Fig. 1B and Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). The base of the resected area had a bluish appearance resulting from the extravasation of the injectate

containing methylene blue and gelafundin into the mesorectum, which differed from the typical “black hole” feature of a perforation.

This suspected perforation was closed with 6 hemoclips (Fig. 1C), and intravenous antibiotics were given during the procedure. After the closure of this perforation, the EMR was completed, and the remainder of the polyp was resected (Fig. 1D).

On inspection of the resected specimen, the target sign was visible (Fig. 1E), and pathology reports indicated the presence of smooth muscle fibers (Fig. 1F), thus confirming our suspicion of an iatrogenic perforation.

The patient was monitored postoperatively for any adverse events. An abdominal CT scan (Fig. 1G) showed no evidence of colonic perforation. Postoperatively, oral antibiotics were given, and there was no evidence of delayed perforation or other adverse events.

The learning points from this case are as follows: (1) retroperitoneal perforations do not display the typical “black hole” feature of a perforation; (2) endoscopists should become aware of the atypical “bluish base” feature of

Written transcript of the video audio is available online at [www.VideoGIE.org](http://www.VideoGIE.org).

retroperitoneal perforations, for prompt management and improved patient outcome; and (3) when endoscopic clips are placed intraprocedurally, care should be taken to avoid the neoplastic tissue to allow EMR of the remaining polyp.

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