

Incision Technique for Flattening the Elevated Mucosa due to Excess Local Injection During Colorectal Endoscopic Submucosal Dissection

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CASE REPORT

Local submucosal injection with a long-lasting solution, such as glycerol or sodium hyaluronate, is crucial for colorectal endoscopic submucosal dissection (ESD).¹⁻³ However, local injection fluids in lesions with severe fibrosis or deep submucosal invasion tend to spread to the submucosal layer surrounding the tumor instead of being restricted to the tumor.⁴ In such situations, the submucosal layer of the tumor is difficult to visualize and approach.

The incision technique involves making a few small incisions in the bulging mucosa, which hinders mucosal flap formation. This technique aimed to flatten the elevated mucosa due to injected solution leakage (Figure 1). This results in better visualization of the submucosal layer of the tumor, and the angle of the ESD knife toward the submucosal layer of the tumor tends to be parallel, which makes mucosal flap creation safe. Video 1 demonstrates the application of the incision technique in a colonic ESD case. The tumor was type 0-I, 20 mm in size, and located on the cecum. The mucosa on the anal side of the tumor was protruding after circumferential mucosal incision and trimming because sodium hyaluronate solution spread to the submucosal layer surrounding the tumor instead of being restricted to the tumor due to submucosal fibrosis, which obstructed access to the submucosal layer of the tumor. Therefore, the incision technique was used carefully to overcome this situation (Figure 2). Otherwise, endoscopists may have to wait until the effect of hyaluronic acid subsides.

The spread of the local injection solution around the tumor cannot be completely avoided according to the tumor or its location; hence, we believe that this technique is useful in such situations.

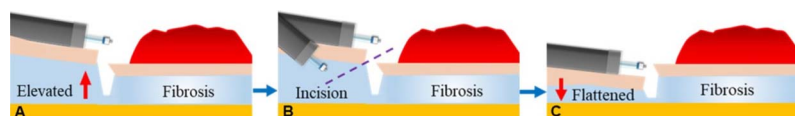


Figure 1. Schematic representation of the incision technique for flattening the elevated mucosa. (A) The injected fluids spread into the submucosal layer around the tumor instead of being restricted to the tumor because of submucosal fibrosis. (B) Incision technique. (C) The protruding mucosa was flattened after the incision.

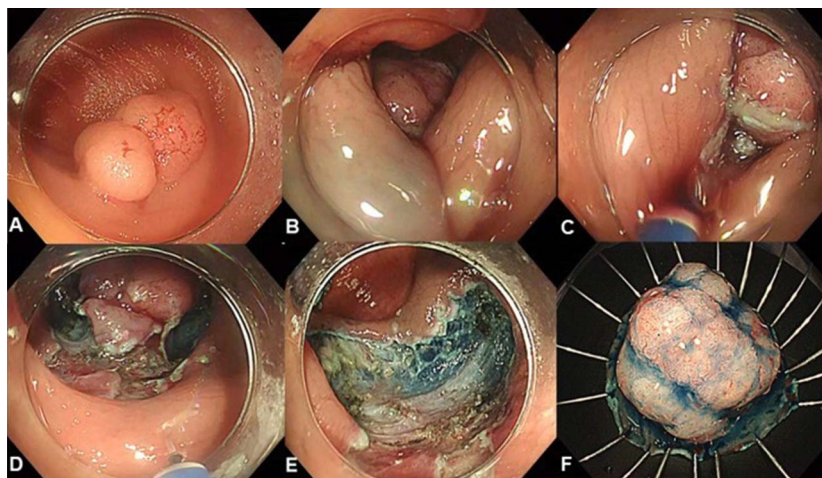


Figure 2. An illustrative case depicting the use of the incision technique for flattening the elevated mucosa. (A) Tumor of macroscopic type 0–I, 20 mm in size, and located on the cecum. (B) The mucosa in front of the tumor was elevated because of the spread of sodium hyaluronate solution. The submucosal layer of the tumor was barely visible. (C) Performing the incision technique. (D) The submucosal layer of the tumor was visible after the incision technique. (E) En bloc resection was achieved without adverse events. (F) The resected specimen.

DISCLOSURES

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