



Acetic acid spray for better delineation of recurrent sessile serrated adenoma in the colon

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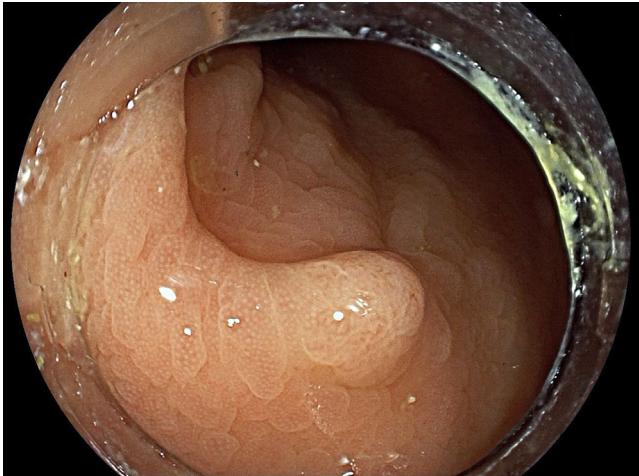


Figure 1. Polypoid lesion 10 mm in diameter on the scarlike area.

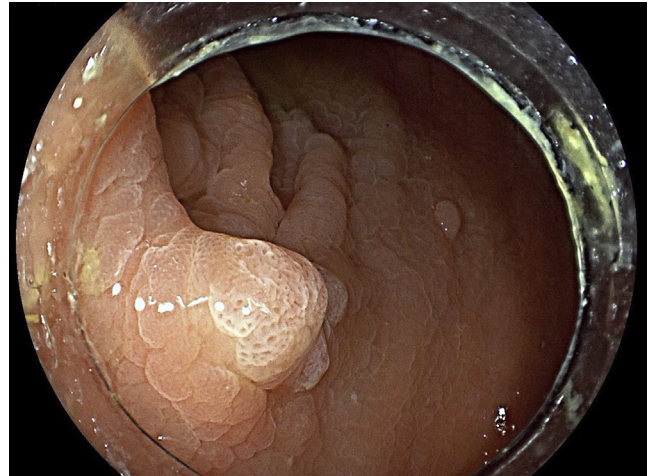


Figure 3. Observation with 1.7% acetic acid in combination with white-light imaging.

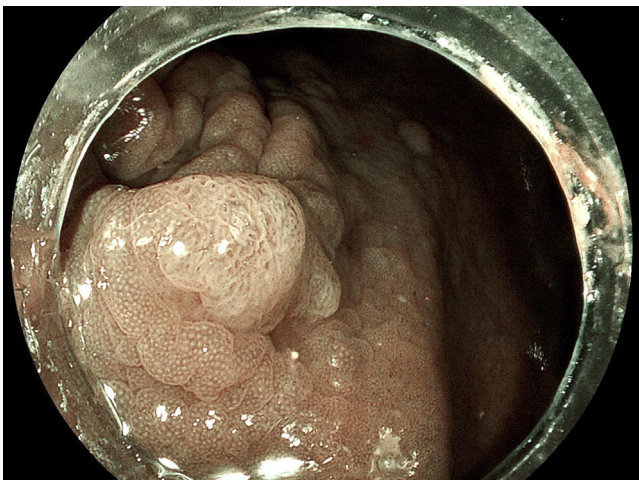


Figure 2. Observation with blue-light imaging.



Figure 4. Observation with 1.7% acetic acid in combination with blue-light imaging.

Sessile serrated lesions (SSLs) have a high risk of incomplete endoscopic resection.¹ The benefit of using acetic acid spray has been reported for SSLs in the colon.^{2,3} Our previous experience has demonstrated that acetic acid spray, along with indigo carmine, is of substantial benefit for the delineation of SSLs.² Similarly, the use of acetic acid for a single case of sessile serrated polyposis syndrome was reported and showed clinical usefulness.³

SSL is difficult to detect because of its flat morphology and the resemblance of its color to the surrounding normal mucosa. In clinical practice, delineation of recurrent SSLs can sometimes be challenging because of coexisting scar tissue.

Recently, a new endoscopy system called Eluxeo (Fujifilm Co, Tokyo, Japan) has been developed. The system provides 3 observation modes by generating variable light-emitting diode (LED) light intensity, including blue-light imaging

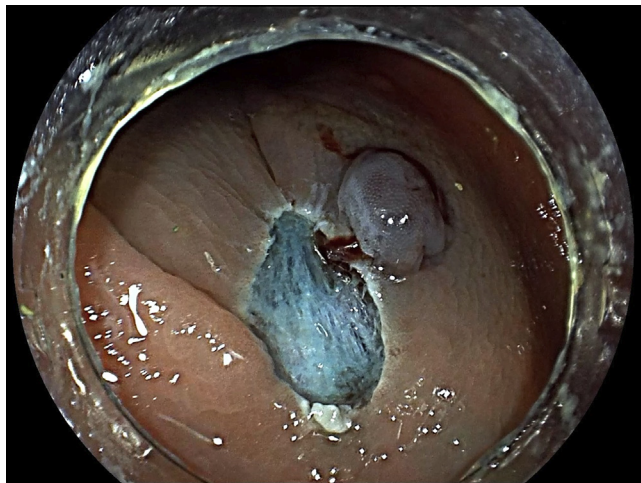


Figure 5. En bloc EMR of lesion.

(BLI). BLI consists of short wavelength absorption of hemoglobin (410 nm) combined with white-light spectral colors. BLI can be activated by pressing a button on the endoscope.⁴ The benefits of BLI in assessing colonic polyps has been reported.⁵ To our knowledge, the use of acetic acid for recurrent SSLs has not been presented before now. We hereby describe the first experience of acetic acid and Eluxeo in a case of recurrent SSL (Video 1, available online at www.VideoGIE.org).

Colonoscopy with a magnifying function and BLI (EC-760ZP-VM; Fujifilm Co) was used. The acetic acid (5%) was diluted in lukewarm water to derive a solution with a concentration of 1.7%. The solution was sprayed directly through the working channel of the endoscope onto the suggestive lesions without the use of a spray catheter. In 10 to 15 seconds, the aceto-whitening reaction began. Thereafter the polyps were assessed with white-light imaging (WLI) and BLI and were characterized before removal of the endoscope.

An 80-year-old man with a history of 2 polypectomies was referred to us. We performed follow-up colonoscopy 3 years after the last procedure. In the cecum, a polypoid lesion with a diameter of 8 mm was found on a scarred surface where the previous polypectomy was performed. The margin of the lesion was unclear (Figs. 1 and 2). We performed chromoendoscopy using acetic acid (Figs. 3 and 4). With magnification, the surface structure and the delineation became clearer, and the polyp was assessed as a recurrent SSL. It was resected en bloc by EMR (Fig. 5). The use of acetic acid in a concentration <2% was safe, and no adverse events were recorded.

Acetic acid induces a temporary chemical change to the surface called aceto-whitening reaction. The difference in the reaction helps to differentiate between normal and neoplastic mucosa.^{6,7} Compared with WLI, BLI provides enhanced imaging of superficial structures and vessels because of its intensive light emission.⁴ This may result in better delineation of colonic polyps, including SSLs,

similar to narrow-band imaging.⁷ The ability of acetic acid to remove adherent mucus may contribute to the clearer views with BLI and acetic acid compared with BLI alone.⁶ The optical absorption property of the epithelial cells can be altered by acetic acid, and for that reason, BLI may potentially reveal white areas as more whitish than does WLI, which can contribute to better delineation of the lesion by BLI and acetic acid compared with WLI and acetic acid. Because it is not cumbersome to switch to BLI, the use of acetic acid in combination with BLI could be an excellent method to improve the visualization of recurrent SSLs and thereby increase the possibility of performing complete endoscopic resections.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviations: BLI, blue-light imaging; LED, light-emitting diode; SSL, sessile serrated lesion; WLI, white-light imaging.

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