



Delineating sessile serrated adenomas/polyps with acetic acid spray for a more accurate piecemeal cold snare polypectomy

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Cold snare polypectomy (CSP) is becoming one of the therapeutic methods of choice for benign polyps in light of its time- and cost-effective properties compared with hot snare polypectomy.¹ The safety and effectiveness of piecemeal CSP (pCSP) of large sessile serrated lesions (SSLs) have been studied in the past,^{2,3} and we have reported pCSP for SSLs without using injection.⁴ The method was effective, but minor bleeding around the edge of the SSL often rendered examination for remnant tumors more difficult. To overcome this problem, we have used acetic acid spray (AAS) to make tumors more clearly distinguishable from the surrounding mucosa. AAS has been previously reported to cause an aceto-whitening reaction when used on SSLs, such as sessile serrated adenomas/polyps (SSA/Ps); when combined with narrow-band imaging (NBI), it becomes an effective tool in identifying polyps and their margins.⁵⁻⁸

To our knowledge, the use of AAS combined with pCSP (AAS-pCSP) has not been previously presented. We present our experience with AAS-pCSP in SSA/P resection. Colonoscopy with NBI was used (PCF-H290I; Olympus Medical Systems, Tokyo, Japan). A solution of 1.7% acetic acid diluted to 50% with normal saline solution was sprayed directly onto the tumor via the working channel. The aceto-whitening reaction was observed 15 to 30 seconds after AAS application. The color contrast between the polyp and the colonic mucosa enabled easy identification of the tumor margin. The tumor was resected with a SnareMaster Plus (SD-400; Olympus Medical Systems) in a piecemeal fashion.

A 58-year-old woman with no significant medical history was referred to us for resection of SSA/P in the ascending colon. Colonoscopy revealed a 20-mm vague white lesion with attached mucous on its surface (Fig. 1; and Video 1, available online at www.VideoGIE.org). The margin of the tumor was unclear. AAS was applied to the tumor, which caused an aceto-whitening reaction a few seconds after application (Fig. 2A). The margin of the tumor became clearer with NBI (Fig. 2B), but because of its size the tumor could not be resected in 1 piece.

The tumor did not have endoscopic characteristics such as reddishness, central depression, double depression, or pedunculated morphology, all of which are characteristics of advanced histology.⁹ Therefore, we decided to resect it in a piecemeal fashion. AAS allowed for a more accurate pCSP of the lesion because of the stronger color contrast between the tumor and the surrounding mucosa, allowing better identification of the remnant tumors (Fig. 3A and 3B). The color contrast was useful during interrogation of the defect edge for lesion remnant, which was identified and resected in a third cut (Fig. 3C). There was no tumor remaining on the ulcer edge (Fig. 4A and B). Histopathology results revealed the lesion to be an SSA/P without dysplasia or carcinoma.

In conclusion, AAS-pCSP can be an effective tool that is safe and can be applied multiple times to improve detection and reduce incomplete resection of SSLs such as SSA/Ps.

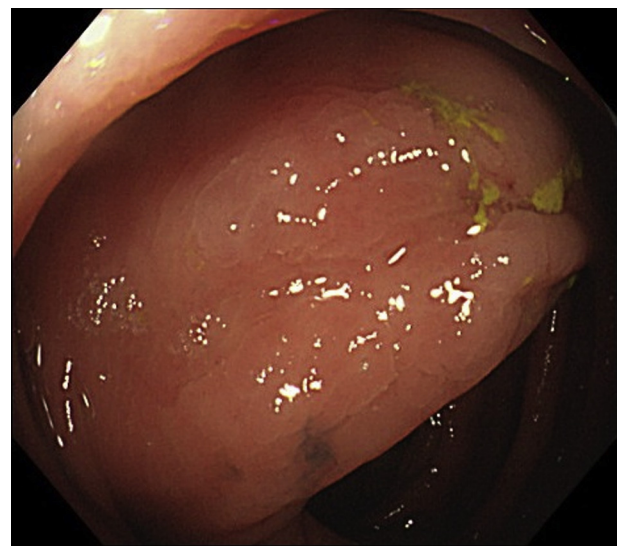


Figure 1. A 20-mm flat lesion suspected of sessile serrated adenoma/polyp in ascending colon.

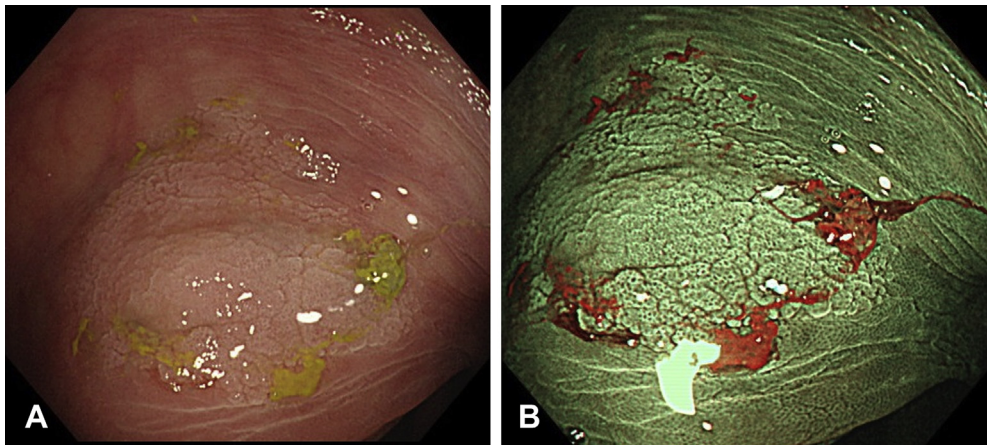


Figure 2. **A**, Acetic acid spray is applied onto the tumor surface, causing an aceto-whitening reaction that turns the tumor surface distinguishably white under white-light imaging. **B**, The aceto-whitening reaction can be seen more clearly with narrow-band imaging.

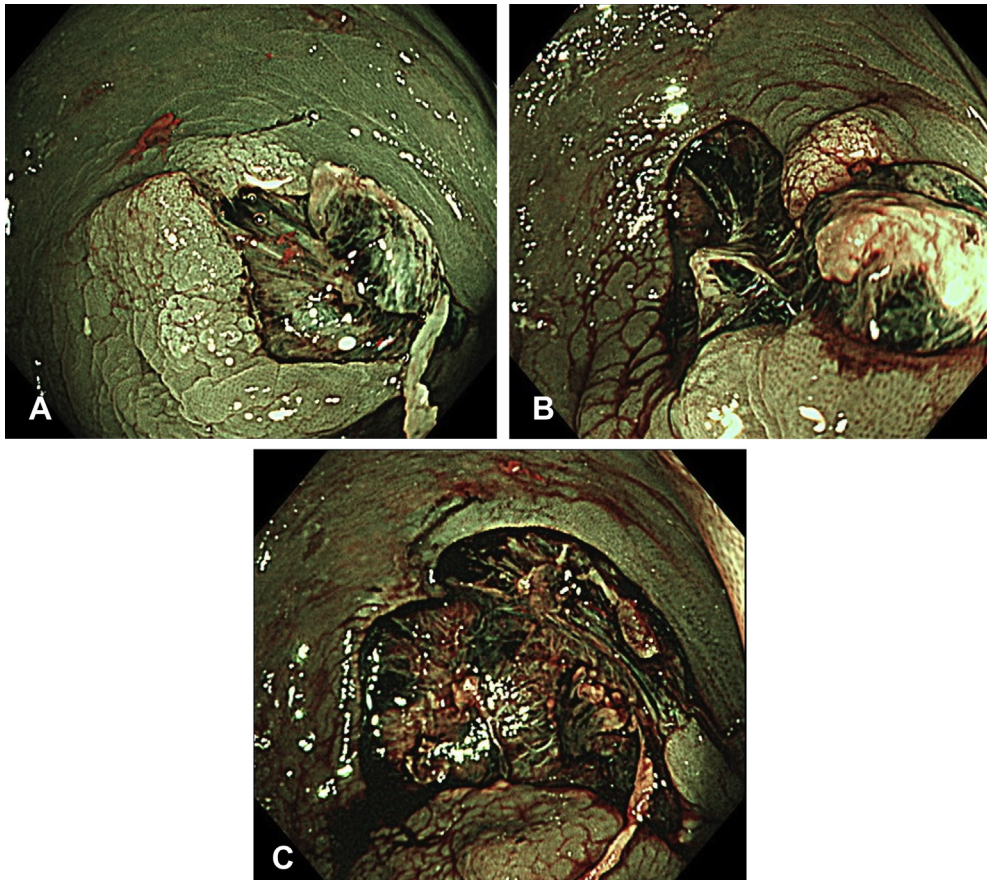


Figure 3. **A**, Narrow-band imaging (NBI) of the tumor after first resection, with the majority of the tumor remaining on the left side. **B**, NBI of the tumor after second resection, revealing a small tumor remnant at 12 o'clock that is distinguishable by its white color. **C**, NBI after the final remnant is resected.

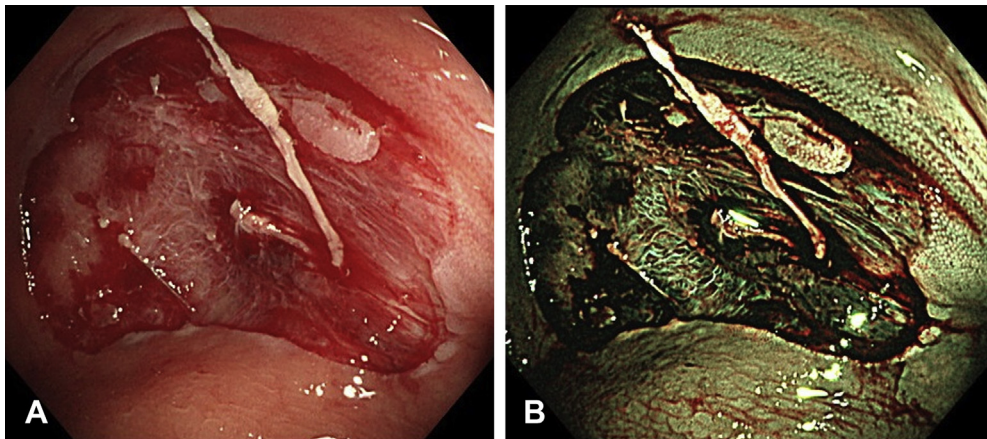


Figure 4. The tumor is completely removed and the ulcer edge is free of remnants, as confirmed under both **A**, white-light and **B**, narrow-band imaging.

DISCLOSURE

All authors disclose no financial relationships.

Abbreviations: AAS, acetic acid spray; NBI, narrow-band imaging; pCSP, piecemeal cold snare polypectomy; SSLs, sessile serrated lesions; SSA/P, sessile serrated adenoma/polyp.

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