Resection of large sessile serrated polyps by cold piecemeal endoscopic mucosal resection: Serrated COld Piecemeal Endoscopic mucosal resection (SCOPE)

Sessile serrated adenomas/polyps (SSA/Ps) are frequently found in the proximal colon, where the wall is thinner and easily damaged by diathermy during polypectomy, which also carries a risk of delayed bleeding, perforation, and post-polypectomy syndrome. SSA/Ps are often flat with subtle, irregular edges making endoscopic assessment of their extent difficult [1]. This can lead to incomplete resection and risk of post-colonoscopy cancer [2].

Currently, cold snare resection (CSR) is considered the preferred technique to resect small polyps. It is safe, time efficient, and user friendly [3]. Recently, case series have highlighted the safety and efficiency of CSR for larger adeno-
mas [4,5]. In this series, we report our preliminary experience in achieving complete resection of large SSA/Ps using a cold piecemeal endoscopic mucosal resection (SCOPE) technique. Following detection of an SSA/P, the polyp surface was assessed. The polyp was then lifted using a submucosal injection of 0.1% hyaluronate and methylene blue, and resected using a small cold snare (9 mm, Exacto; US Endoscopy, Mentor, Ohio, USA) in a piecemeal manner (Video 1). A gradual increase in snare closure pressure was applied to mechanically transect each polyp piece. Each polyp was resected with a small rim of adjacent normal mucosa (1–2 mm) in order to achieve a complete resection margin. The polypectomy defect edges were scrutinized for any remaining polyp and trimmed using the snare, or cold avulsed with a biopsy forceps (Fig. 1, Video 1).

The SCOPE technique was applied successfully in 10 consecutive patients with 29 large SSA/Ps. We achieved complete resection in all cases (Table 1). Minor oozing was noted in almost all cases; however, no hemostatic interventions were required. There were no adverse events during or after resection. Histology showed complete resection of polyps (Fig. 1). In one polyp (3.4%), a small area of residual tissue was observed at the follow-up examination; this was resected using cold snaring.

**Table 1** Patient and polyp characteristics.

<table>
<thead>
<tr>
<th>Case #</th>
<th>Age, years</th>
<th>Location</th>
<th>Number of SSA/P</th>
<th>Size, mm (number of polyps)</th>
<th>Follow-up, months</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>64</td>
<td>Ascending colon</td>
<td>1</td>
<td>30</td>
<td>12</td>
<td>No recurrence</td>
</tr>
<tr>
<td>2</td>
<td>62</td>
<td>Hepatic flexure</td>
<td>1</td>
<td>30</td>
<td>9</td>
<td>No recurrence</td>
</tr>
<tr>
<td>3</td>
<td>68</td>
<td>Ascending colon</td>
<td>1</td>
<td>30</td>
<td>7</td>
<td>5-mm residual polyp; cold snared</td>
</tr>
<tr>
<td>4</td>
<td>68</td>
<td>Ascending colon</td>
<td>1</td>
<td>20</td>
<td>7</td>
<td>No recurrence</td>
</tr>
<tr>
<td>5</td>
<td>42</td>
<td>Hepatic flexure</td>
<td>1</td>
<td>30</td>
<td>6</td>
<td>No recurrence</td>
</tr>
<tr>
<td>6</td>
<td>31</td>
<td>Cecum – transverse colon</td>
<td>7</td>
<td>10 (5), 15 (1), 20 (1)</td>
<td>12</td>
<td>No recurrence</td>
</tr>
<tr>
<td>7</td>
<td>39</td>
<td>Cecum – transverse colon</td>
<td>7</td>
<td>10 (4), 20 (3)</td>
<td>6</td>
<td>No recurrence</td>
</tr>
<tr>
<td>8</td>
<td>77</td>
<td>Ascending colon</td>
<td>2</td>
<td>12 (1), 18 (1)</td>
<td>8</td>
<td>No recurrence</td>
</tr>
<tr>
<td>9</td>
<td>34</td>
<td>Cecum – transverse colon</td>
<td>4</td>
<td>10 (2), 15 (2)</td>
<td>12</td>
<td>No recurrence</td>
</tr>
<tr>
<td>10</td>
<td>29</td>
<td>Ascending colon</td>
<td>4</td>
<td>10 (2), 15 (2)</td>
<td>7</td>
<td>No recurrence</td>
</tr>
</tbody>
</table>

SSA/P, sessile serrated adenoma/polyp.

**Video 1** A 30-mm sessile serrated polyp was resected using the serrated cold piecemeal endoscopic mucosal resection (SCOPE) technique.

**Competing interests**

None

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