Introduction

More than 70% of polyps detected during colonoscopy are diminutive (1-5 mm) and small (6-9 mm). Although advanced histology is relatively infrequent among diminutive and small polyps, more than 60% of diminutive polyps and 70% of small polyps are neoplastic.¹

10-27% of interval cancers might be related to incomplete polypectomy. Therefore, complete resection with clear margin is also important for diminutive and small polyps to eliminate the risk of recurrence and interval cancer. Complication rate, tissue retrieval rate, and procedure time are another factors to be considered when choosing a method for removal of diminutive and small polyps.

Forceps or snare, cold or hot?

Cold forceps polypectomy is a relatively simple technique.² However, incomplete polypectomy based on histology was 79% lower with cold snare polypectomy than with cold forceps polypectomy according to a systematic review and meta-analysis and polyp size ≥ 4 or 5 mm was an independent predictor of incomplete polypectomy.³ ⁴ Cold snare polypectomy can be applied for the resection of polyps up to 7-10 mm in size.² The technique of cold snaring is different from that of hot snaring. Firstly, the lesion should be positioned at 5 o’clock with the snare opened and lowered over the lesion. The tip of the snare should be anchored several millimeters distal to the polyp by slightly pushing the catheter while keeping it down and right to the colonic wall, then the snare can capture a normal margin as it is closed. Horiuchi et al reported that using a dedicated cold snare increased complete resection rate especially for polyps 8 to 10 mm than using a traditional snare.⁶

In a small randomized trial, cold snare polypectomy is superior to hot snare polypectomy in procedure time and post-polypectomy abdominal symptoms.⁷

Cold snare polypectomy is a safe technique with a low risk of complications. Delayed bleeding occurs significantly less commonly than hot snare polypectomy in anticoagulated patients.⁸ It is likely that cold snare polypectomy preserves the vessels from trauma whereas electrosurgical currents can cause injury of submucosal blood vessels. Cold snare polypectomy is not associated with perforation.⁹

Cold snare polypectomy may be associated with tissue retrieval failure.¹⁰ The tissue may be frequently missed
especially in the right colon since it is generally wider with higher folds and less clean. Diathermy may facilitate passage of the resected polyp through the working channel by coagulating the tissue. Two techniques can be used for polyp retrieval. One is suction of the resected polyp which remains on or near the polypectomy site and the second is trapping the polyp into the snare, pulling it into the working channel, and quillotining it. The retrieval rate of the first method was higher than that of the second method (100% vs. 90%, \( P = 0.04 \)).

In western counties, cold snare polypectomy is considered the optimal method for complete resection of diminutive and small polyps whereas the adoption of this technique is still limited in Asia.

**Conclusions**

Considering complete resection rate and complication rate, cold snare polypectomy is preferred for removal of diminutive and small polyps especially 4-7 mm in diameter.

**References**