Endoscopic polypectomy of a large polyp can be difficult due to inability to snare the polyp. The difficulty may increase when the polyp is located at the turning corner of the bowel. We presented a case of a 3 cm-sized large pedunculated polyp located at the superior duodenal angle that was not amenable to conventional snare polypectomy, but was instead successfully resected by hemoclip-assisted and needle knife method. Such experience has not been reported in the English literature. [Chin Med J (Taipei) 2001;64:731-734]

**Case Report**

A 76-year-old woman complained of dull epigastric pain for the last two years. The pain was not related to food, had no radiation and no obvious aggravating and relieving factors. On physical examination, she was mildly anemic. Hemoglobin was 11 g/dl, and serum iron, total iron-binding capacity suggested an iron deficiency anemia. She received a premedication of intramuscular injection of hyoscine-N-butylbromide 40 mg, pethidine 25 mg and underwent a panendoscopic (XQ-200, Olympus Optical Co., Tokyo, Japan) examination. A 3 cm-sized large pedunculated polyp with bleeding at the superior duodenal angle was detected. The large size of the polyp and the location at the superior duodenal angle made a conventional snare polypectomy unsuccessful. So, endoscopic polypectomy with hemoclip and needle knife technique was used. With a side-view duodenal scope (TJF-200, Olympus Optical Co., Tokyo, Japan), one hemoclip (Olympus HX-5QR-1, MD-850 clip) was applied at the base of the stalk of the polyp and the polyp was successfully resected.
the polyp (Figs. 1A, 1B). The stalk was then cut with a needle knife between the head of the polyp and the clip (Fig. 1C). There was no post-polypectomy bleeding (Fig. 1D). The procedure took about 20 minutes, the resected polyp was of 3 cm size, and no medication was given to the patient after the procedure. The pathological report was a hamartoma.

Discussion

Hayashi et al. first described hemoclipping as a therapeutic endoscopic maneuver in Japan, and with improvements in the design of the applicator device, hemoclipping has been used in various conditions. It has been widely used to control gastrointestinal bleeding, with a final success rate of 98.9% (87/88 cases) without complications. The applications of hemoclipping for treatment of esophageal varices, diverticular bleeding, closure of tissue defects, perforation, anastomotic leakage, prevention of post-polypectomy bleeding, as a marker for endoscopic re-examination, placement of enteral feeding tubes, and improving anatomic orientation for biliary duct cannulation have been described. No complications associated with hemoclips have been reported.

Cippolletta et al. described the technique of endoclips and needle knife for transection of large pedunculated colonic polyps in 4 patients who were not amenable to conventional snare polypectomy. The authors placed clips at two levels, one close to the bowel wall and another near the head of the polyp, and the resection of the stalk was done with a needle knife. The procedure was time-consuming.

In our case, in addition to the large size of the polyp, the location at the superior duodenal angle in particular made conventional polypectomy more difficult due to the limited space at the turn of the duodenum. The endoscope fell back to the stomach or went down to the descending duodenum easily with either pulling or pushing of the endoscope. So within the limited working space at the superior duodenal angle, the large polyp was resected safely with only a hemoclip and needle knife technique. We used only one hemoclip in stead of two, thus reducing the procedure time. When one hemoclip is able to clip the stalk completely, and since the arterial blood supply goes towards the polyp, there is no risk of bleeding when the polyp is resected with a needle knife between the base of the polyp and the hemoclip.

In summary, this technique can be useful for endoscopic polypectomy of large pedunculated polyps at difficult locations.

References