Endoscopic resection of a giant fibrovascular esophageal polyp by use of a scissor-type knife

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A 73-year-old woman presented to the emergency department because of loss of consciousness; she recovered within a few minutes. Chest CT revealed a large intraluminal tumor arising from the proximal esophagus (Fig. 1). Accordingly, she was referred to our department. Barium esophagography revealed an approximately 10-cm-long intraluminal esophageal mass arising from the cervical esophagus (Fig. 2).

EGD revealed a pedunculated polyp covered with normal squamous epithelium (Fig. 3). The polyp was entirely stained with iodine (Fig. 4). These findings suggested a giant fibrovascular esophageal polyp. Although the patient did not describe dysphagia or anorexia, her temporary loss of consciousness could be attributed to polyp-related asphyxia. Regardless of the large polyp size, its pedicle could be clearly visualized (Fig. 5). Accordingly, endoscopic polyp removal with the patient under general anesthesia was planned, and informed consent was obtained because of the progressive nature of the polyp and the risk of sudden death by asphyxiation due to polyp regurgitation.

Initially, we attempted polyp resection using an endoscopic snare technique; however, its large size prevented...
this application. Subsequently, we performed resection with a stag beetle (SB) knife GX (opening width 7.5 mm; Sumitomo Bakelite Co, Ltd, Tokyo, Japan), a scissor-shaped device that can easily grasp the polyp stalk (Video 1, available online at www.VideoGIE.org). Three types of SB knives (Jr, short, and GX types) are available in Japan. In our patient, the polyp pedicle was wide and thick, and the polyp was easy to move. Thus, we selected the SB knife GX; its characteristics and comparison with another SB knife are described in the video.

An endoclip was positioned at the pedicle base before resection to prevent bleeding. The knife facilitated grasping the pedicle, and the pedicle was excised by use of a high-frequency generator (VIO300D; Erbe, Tubingen, Germany) in the endocut Q mode (effect 1). Using the soft coagulation mode (effect 5, 40 W), we prevented intermittent bleeding, and coagulation was achieved during excision. We endoscopically resected the giant polyp en bloc safely, without perforation (Fig. 6), with negligible bleeding, and removed it using an overtube. Histologic analysis identified a fibrovascular polyp (Fig. 7). On postoperative day 2, the patient initiated oral intake and was discharged without adverse events.

Giant fibrovascular esophageal polyps are rare, representing <2% of all esophageal benign tumors. Most of these are enormous and arise from the cricopharynx or upper esophagus. Polyp regurgitation into the mouth can cause laryngeal obstruction, causing asphyxiation and death. Polyp resection is recommended in all patients for controlling symptoms and eliminating the risk of asphyxiation. Traditional excision commonly involves transcervical vertical esophagotomy. Endoscopic resection is technically feasible and avoids transcervical vertical

Figure 3. Endoscopic view showing the surface of the fibrovascular polyp.

Figure 4. Endoscopic view showing the fibrovascular polyp entirely stained with iodine.

Figure 5. Endoscopic view showing the pedicle of the fibrovascular polyp.

Figure 6. Giant fibrovascular polyp of the esophagus after endoscopic resection.
esophagotomy-related morbidity.3 Recently, endoscopic resection with ultrasonic shears, a needle-type knife, and an electrosurgical snare has been performed.3-5 The Scissor-type knife facilitates grasping the pedicle and enables simultaneous excision and coagulation while maintaining a stable view by use of only a single device. Furthermore, the SB knife’s capacity to grasp, assess, and then excise and coagulate target tissues enables safe and easy resection of large polyps with their stalk, which is challenging when the snare technique is used.

**DISCLOSURE**

All authors disclosed no financial relationships relevant to this publication.

Abbreviation: SB, stag beetle.

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