



Endoscopic resection of a squamous cell carcinoma on a pharyngeal flap

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Endoscopic resection is a minimally invasive treatment for superficial pharyngeal cancer that requires general anesthesia and a laryngoscope to secure the operating space.¹⁻⁴ However, it is unclear whether endoscopic resection can be performed for lesions on a reconstructed pharyngeal flap. We previously demonstrated the endoscopic resection of a squamous cell carcinoma on the pharyngeal flap, which was termed endoscopic “flapectomy.”⁵ The superior flexibility of the endoscope compared with other transoral surgical devices enables it to approach the operating space.

A 73-year-old man who had undergone total glossectomy with total laryngectomy for oropharyngeal cancer 2 years previously underwent upper gastrointestinal endoscopy that detected a 7-mm-diameter squamous cell carcinoma on the pharyngeal flap (Fig. 1). Transoral devices could barely reach the lesion. Endoscopic resection was performed with a video endoscope (GIF-Q260J; Olympus Co, Tokyo, Japan), electro-surgical unit (VIO300D; ERBE, Tübingen, Germany), and cutting device (Flushknife; Fujifilm Medical, Tokyo, Japan). The operating space was

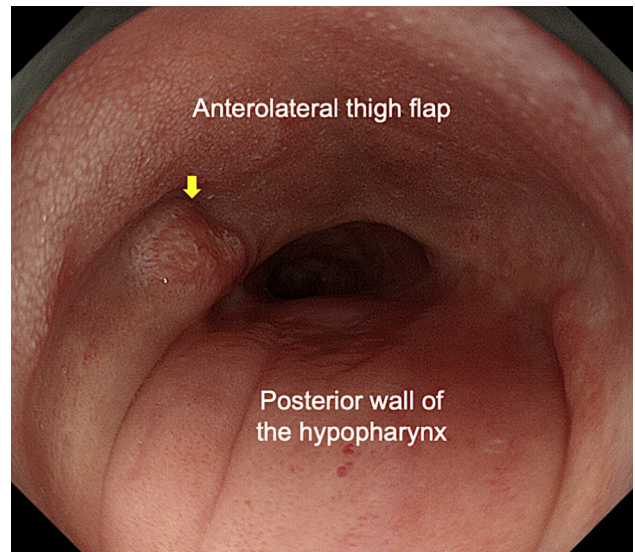


Figure 2. Endoscopic image obtained at the time of endoscopic resection. The upper part of the image is an anterolateral thigh flap, and the lower part of the image is the posterior wall of the hypopharynx. The arrow indicates the lesion.

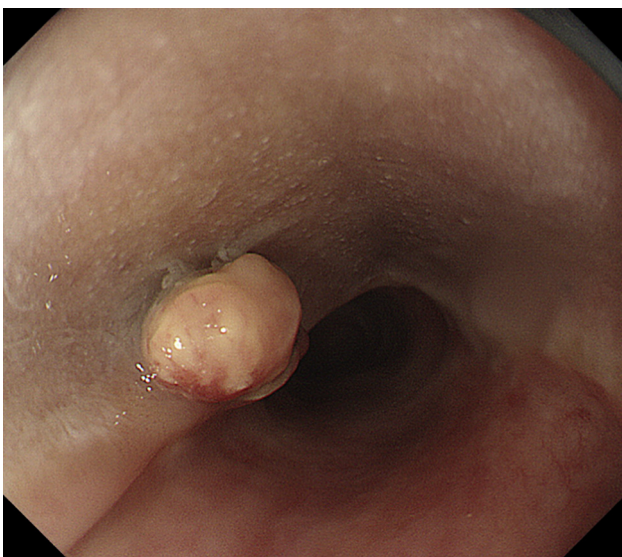


Figure 1. Endoscopic image obtained at the time of diagnosis. Upper GI endoscopy reveals a protruding lesion on the pharyngeal flap.

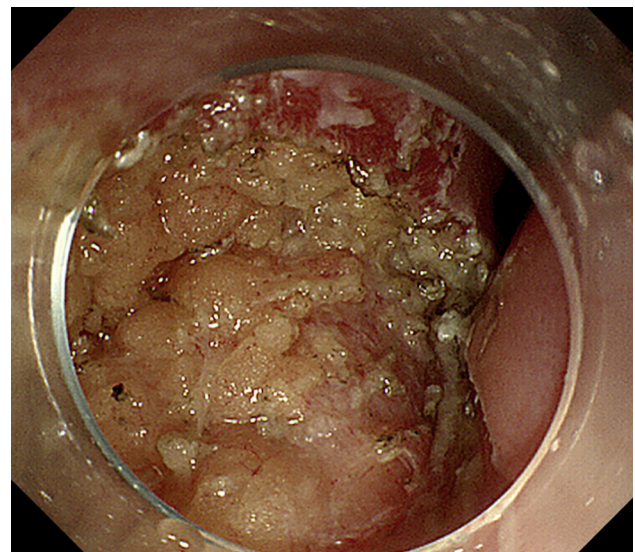


Figure 3. Endoscopic image obtained after endoscopic resection. The postresection wound comprises subcutaneous tissue containing a substantial amount of fat.

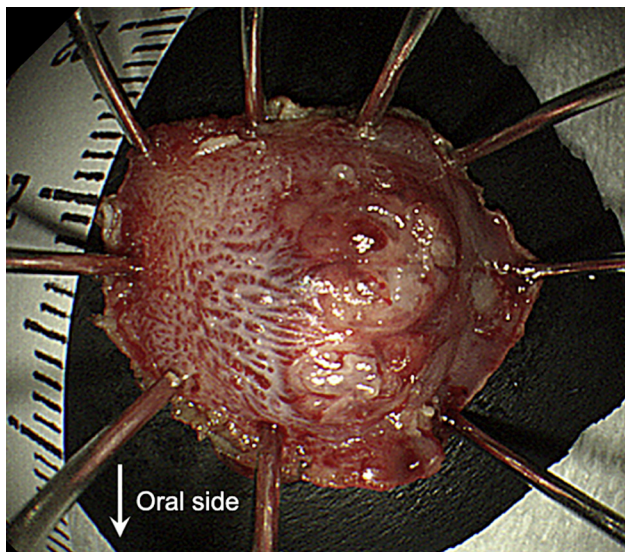


Figure 4. The resected specimen.

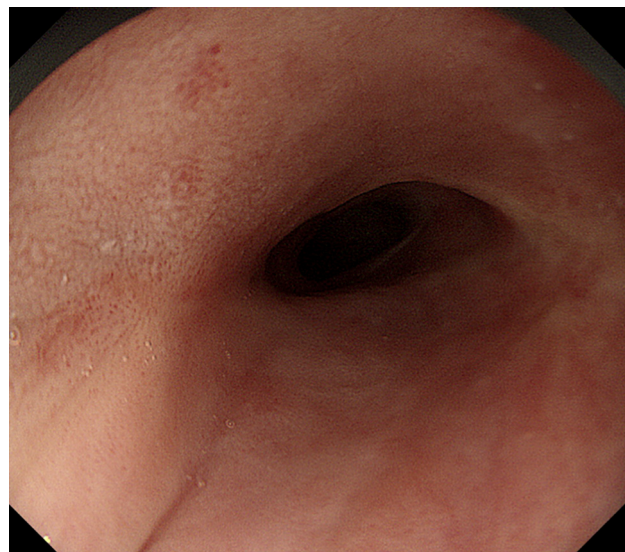


Figure 6. Endoscopic image at follow-up endoscopy 2 months after endoscopic resection. No residual cancer is seen on the flap.

secured without a laryngoscope with the patient under deep sedation with midazolam and pethidine (Fig. 2). The mucosa surrounding the lesion was incised, and the subcutaneous tissue was cut using the ENDO CUT or SWIFT COAG mode of the VIO300D (Video 1, available online at www.VideoGIE.org). The procedure was completed within 39 minutes without adverse events (Fig. 3). The patient started food intake on postoperative day 2 and was discharged on postoperative day 5. Histologic examination showed a 3-mm-thick squamous cell carcinoma localized in the dermis without lymphovascu-

lar invasion (Figs. 4 and 5). No definite histologic findings indicated that this lesion was a recurrence of the previous oropharyngeal cancer. The endoscopic resection wound was completely scarred within 2 months (Fig. 6), and subsequent surveillance endoscopy showed no residual cancer on the flap.

Standard pharyngeal endoscopic resection carries no risk of perforation, and other severe adverse events are rare.⁴ In the present case, the epithelium, subepithelium, and muscle layer of the oropharynx had been replaced during the previous surgery by an anterolateral thigh flap comprising epidermis, dermis, and subcutaneous tissue. The epidermis and dermis of the flap are thicker and stiffer than the epithelium of the pharynx. Moreover, the subcutaneous tissue contains a lot of fat, and so its appearance differs from the submucosa of the GI tract. Thus, the traditional concepts of endoscopic resection of the GI tract do not apply to flap lesions (ie, there is no semitransparent submucosal layer and submucosal injection is impossible). In addition, a deep incision beyond the fat-containing subcutaneous tissue might expose a sparse cavity continuous to the mediastinum, increasing the risk of abscess formation. We therefore kept the cutting level just below the dermis throughout the procedure in the present case. Endoscopic flapectomy was accomplished safely with the patient under deep sedation without a laryngoscope.

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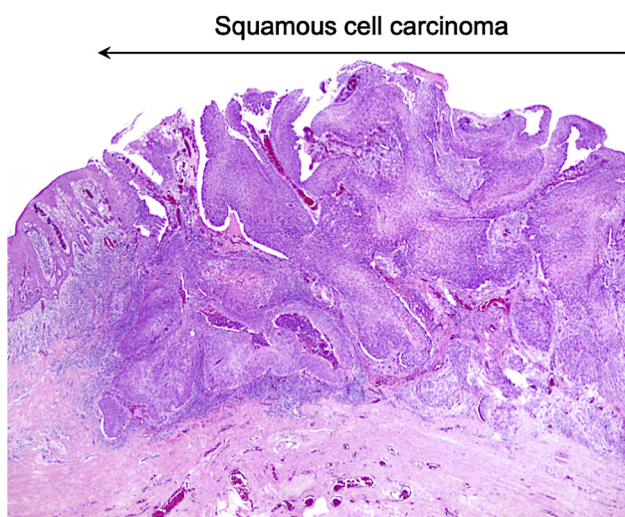


Figure 5. Histologic examination of the resected specimen with hematoxylin and eosin staining. The lesion was diagnosed as a 3-mm-thick squamous cell carcinoma localized in the dermis.

DISCLOSURE

All authors disclosed no financial relationships.

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