Successful treatment for hypopharyngeal cancer in a patient with superficial esophageal cancer by endoscopic submucosal dissection

Fig. 1 Upper endoscopic findings for the hypopharynx. **a** A slightly elevated lesion with fine granular changes and absence of continuity with blood vessels, approximately 1.6 cm in diameter, was detected synchronously in the posterior wall of the hypopharynx. **b** With the narrow band imaging (NBI) system, this lesion displayed a clearly demarcated brownish area. **c** Using the NBI system with a magnifying endoscope, the intrapapillary capillary loop took on irregular shapes including dilation, tortuosity, caliber change, and meandering. These observations suggested that the lesion would have malignant potential.

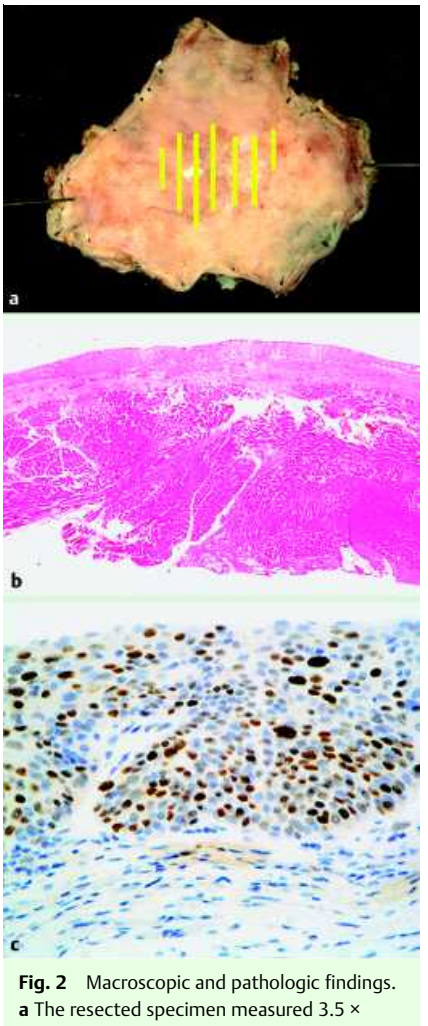

Fig. 2 Macroscopic and pathologic findings. **a** The resected specimen measured 3.5 × 3.0 cm and macroscopically, resected margins were almost optimal circumferentially (× 1). The extent of cancer spread was schematically drawn using yellow color lines, and measured 1.7 × 1.3 cm. **b** Histologic findings revealed noninvasive, moderately differentiated squamous cell carcinoma limited to the lamina propria mucosae without vessel or lymphatic infiltration. In addition, both horizontal and vertical margins were sufficient (× 20). **c** Immunohistochemistry revealed p53-positive cells were randomly widespread in the outer basal cell layer (× 200).

A 68-year-old man with a history of laryngectomy for laryngeal cancer 3 years earlier was diagnosed with superficial esophageal squamous cell carcinoma (ESCC). In addition, a slightly elevated lesion (1.6 cm) was detected synchronously in the posterior wall of the hypopharynx (**Fig. 1 a**). Using a narrow-band imaging (NBI) system with magnifying endoscopy (GIF TYPE H260Z; Olympus), this lesion displayed a clearly demarcated brownish area (**Fig. 1 b**) and the intrapapillary capillary loop (IPCL), which was advocated by Inoue et al. [1], took on irregular shapes (**Fig. 1 c**). For treatment of the hypopharyngeal lesion, endoscopic submucosal dissection (ESD) was performed under general anesthesia followed by subtotal esophagectomy. A mucosal incision was made with the flex knife and the subepithelial tissue was cut with a hook knife. Macroscopic examination of the resected specimen (3.5 × 3.0 cm) revealed cancer spread over an area of 1.7 × 1.3 cm (**Fig. 2 a**). Histologically, noninvasive squamous cell carcinoma was limited to the epithelial layers without either vessels or lymphatic infiltration, and both horizontal and vertical margins were sufficient (**Fig. 2 b**). Immunohistochemistry revealed that p53-positive cells were widespread in the outer basal cell layer (**Fig. 2 c**). This observation led to a diagnosis of squamous cell carcinoma of the hypopharynx, not a dysplastic lesion or regenerative changes.

One of the hallmarks of ESCC is synchronous or metachronous tumors arising in the head and neck [2]. An NBI system with magnifying endoscopy is useful for acquiring valuable information about small lesions of the hypopharynx [3], and ESD is a more favorable method than endoscopic mucosal resection for early-stage hypopharyngeal cancer located in anatomically complex areas [4]. In conclusion, an NBI system with magnifying endoscopy has increased the chance of early detection of hypopharyngeal cancer, and ESD would be the optimal method of treatment at least for early-stage hypopharyngeal cancer.

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