Superficial esophageal cancer type 0-IIa+IIc (m2): a case atlas

Introduction

A 60-year-old man came to our hospital because of esophageal carcinoma. Pathological studies on biopsy revealed a squamous cell carcinoma. He had drunk 540 ml Japanese sake every day and smoked 20 cigarettes per day for 40

Endoscopic findings

Conventional esophagoscopy revealed a slightly elevated lesion with a shallow depressed part (0-IIa+IIc), 20 mm in size, on the left wall of the middle thoracic esophagus (Figs. 1, 2). The border of the lesion was indistinct by conventional esophagoscopy. The surface of the elevated lesion was slightly rough, and its color was red. A shallow depressed part was seen at the oral and anal sides of the elevated lesion.

The lesion was stained weakly by toluidine blue, and no strongly stained part was seen (Figs. 3, 4). The lesion revealed clearly an unstained area after iodine staining (Fig. 5).

Magnifying endoscopy revealed irregular microvessels in the anal part of the lesion. The irregularity of the oral part was not so severe (Fig. 6). However, an area devoid of capillaries surrounded by abnormal vessels was observed at the elevated and anal part of the lesion. However, the caliber of the irregular vessels was not so wide (Figs. 8, 9).

Therefore, we diagnosed the carcinoma had invaded the proper mucosal layer (m2) and had not invaded the muscularis mucosa.

Endoscopic submucosal dissection (ESD) with the hook knife was carried out, and en bloc resection of the lesion was performed.

Macroscopic findings

The fresh resected specimen (Fig. 10) showed a slightly elevated lesion with a shallow depressed part (0-IIa+IIc). The upper side of the specimen is the oral side. The lesion was 18 × 11 mm in area. The surface of the depressed lesion was smooth, and its color was slightly red: the surface of the elevated lesion was rough and its color was white. The margin of the lesion was clearly visible after iodine staining (Fig. 11).

Pathological findings (Figs. 12, 13)

Squamous cell carcinoma (SCC) was confined to the epithelial layer and had not contacted the muscularis mucosa. The white lines in Fig. 12 indicate the area of SCC. No microvascular permeation was noted. The diagnosis was SCC,

Fig. 1. Conventional endoscopy revealed a slightly elevated lesion with a shallow depressed part (0-IIa+IIc type)
Fig. 2. The shape of the elevated part did not change when the airspace of the esophageal lumen was decreased

Fig. 3. The lesion was stained weakly with toluidine blue

Fig. 4. Another view of the lesion shown in Fig. 3

Fig. 5. Endoscopic view after iodine staining clearly reveals an unstained lesion

If the height of an esophageal carcinoma is less than 1 mm and its surface is smooth, the invasion depth is diagnosed as mucosal layer. Also, the microvessels of m1/m2 SCC are not as large and elongated with magnifying endoscopy. If the height of an esophageal carcinoma is about 1–2 mm and the lesion reveals an irregular surface, the invasion depth is diagnosed as m3/sm1. The typical microvessels of m3-sm1 cancer observed by magnifying endoscopy are larger and more elongated [2].

In our case, the height of the elevated lesion was 1–2 mm and the surface was irregular. Therefore, the invasion depth

Diagnostic points

Lymph nodal metastasis of the esophageal cancer is almost 0% in m1 and m2 but 9.7% in m3 [1]; therefore, differential diagnosis of m3 cancer from m1 and m2 cancer is very important.