Esophageal Squamous Cell Carcinoma Involving the Lip, Back and Hip

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A 65-year-old male patient visited the Cancer Hospital Chinese Academy of Medical Sciences (Beijing, China) on January 22, 2019. Nine months previously, he was diagnosed with esophageal squamous cell carcinoma with suspected lung metastasis; he initially received concurrent chemoradiotherapy (radiation dose: 45 Gy; chemotherapy regimen: nedaplatin) and subsequent systemic chemotherapy (oxaliplatin + calcium folinate + fluorouracil). The esophageal lesions responded to chemoradiotherapy; however, the pulmonary lesions enlarged (Fig. 1). After chemotherapy, small nodules formed in his lower lip, right hip, and right back, but the patient did not acknowledge them. The subcutaneous nodules gradually grew into masses (Fig. 2), and the patient visited a doctor. The patient was able to ingest food without difficulty, but he was unable to lie down on his right side without discomfort. He had no history of smoking.

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Figure 1. Computed tomography images of esophageal cancer and lung metastasis before and after concurrent chemoradiotherapy. The left two images: the esophageal lesions responded to chemoradiotherapy after treatment (arrows). The middle two images: the pulmonary metastatic lesion enlarged after chemoradiotherapy (arrows). The right two images: the pulmonary metastatic lesion enlarged after chemoradiotherapy (arrows).
liquid and semiliquid food without difficulty at the time of the doctor visit. Examination revealed a 3.9 \times 4.1\text{ cm} mass on his lower lip, a 2.2 \times 2.0\text{ cm} mass on his right back, and a 4.8 \times 4.3\text{ cm} mass on his right hip. The lip skin was ulcerated, whereas the skin over the other two tumors was not. Ultrasound-guided biopsies were performed on the three lesions (Fig. 3) and they were diagnosed as metastatic esophageal squamous cell carcinomas by two pathologists. The patient then underwent computed tomography examinations of the brain, chest, and abdomen, and no new metastasis except lung metastasis was found. Because of the patient’s advanced status, isotope bone scanning was not performed to evaluate bone metastasis. Further chemotherapy was recommended, but he and his family refused treatment and returned home because of the patient’s weakness. During the recent follow-up, a family member of the patient told us that the patient had died of cachexia on April 15, 2019 (the timeline of treatment and follow-up is shown in Fig. 4).

In the current case, pulmonary metastasis of esophageal cancer was suspected at the time of initial diagnosis. Pulmonary metastasis is usually considered to be the result of tumor metastasis through hematogenous routes, and the presence of pulmonary metastasis means that tumor cells have been hematogenously disseminated. Although the patient received systemic chemotherapy, the pulmonary lesions continued to increase. Therefore, the tumor cells seemed insensitive to chemotherapy, and they continued to grow and form subcutaneous metastases. The patient survived only half a year from the onset of subcutaneous nodules to death. We hypothesize that the presence of subcutaneous metastasis represents the widespread presence of tumor cells in the blood, which lead to a very short survival period of the patient.

Cutaneous metastases from the esophagus are rarely reported, as skin metastasis affects only 0% to 1.3% of all patients with esophageal cancer who experience metastasis. In a review of 4020 cases of cutaneous metastases, primary metastases were present in the esophagus in only 3 cases, accounting for only 0.07% of all patients with cutaneous metastases. Subcutaneous lip metastasis is an even rarer malignant tumor event. To our knowledge, this is the first reported case of esophageal squamous cell carcinoma involving multiple subcutaneous metastases, including lip metastasis. When skin nodules occur in these patients, doctors should be aware of the possibility of metastasis. A pathologic examination is crucial for diagnosis and is necessary to provide appropriate and timely treatment for patients.

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