

## Skin Metastasis of Hypopharyngeal Carcinoma to the Nasal Tip

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### ABSTRACT

Head and neck squamous cell carcinoma (SCC) rarely metastasizes to the skin. Metastases to the nasal tip from hypopharyngeal malignancies are extremely rare. We present a patient with nasal tip metastasis from hypopharyngeal SCC. A 74-year-old man with hypopharyngeal and esophageal carcinomas had a red nodule on his nasal tip (so-called “clown nose”). Histopathologically, atypical squamoid cell nests had proliferated in a lobular fashion from the dermis to subcutaneous tissue. Those atypical cells were identical to primary tumor cells in the hypopharynx. Based on these findings, a diagnosis of skin metastasis from hypopharyngeal SCC was made. In patients with malignant disease, biopsy should be performed for any suspicious skin lesion. In a patient like ours, “clown nose” might be a symptom of cutaneous metastasis. When clinicians note a “clown nose”, they should consider malignancies in the neck and chest areas.

**Key words** hypopharyngeal; nasal tip; metastasis

Head and neck squamous cell carcinoma (SCC) rarely metastasizes to the skin, and the incidence has been reported to be less than 1%.<sup>1, 2</sup> The discovery of skin metastasis may be the first evidence of disseminated disease or visceral cancer. Chest or abdominal skin is the most preferential site for cutaneous metastases, whereas the least common site is the face or scalp skin.<sup>2</sup> The nasal tip is an extremely rare site for cutaneous metastatic spread. We report a rare case of a patient with nasal tip metastasis from hypopharyngeal SCC.

### PATIENT REPORT

A 74-year-old man had a 2-week history of a skin lesion on his nasal tip. He had been diagnosed with hypopharyngeal and esophageal carcinomas 3 years before the first visit to the dermatology clinic of Tottori University Hospital. He had undergone an operation of the double cancer and chemotherapy. Microscopic examination of the hypopharyngeal tissue showed a poorly differentiated SCC. Regional lymph nodes had metastatic foci (T3, N2b, M0: Stage IV-A). Histopathological examination of esophageal tissue revealed that moderately to well-differentiated SCC remained in the esophageal mucosal

epithelium (T1b, N0, M0: Stage I). There were no metastatic foci in regional lymph nodes of the esophagus. On physical examination in our clinic, there was a red nodule of 1 cm in diameter on his nasal tip (so-called “clown nose”) (Fig. 1). Dermoscopic examination showed a yellowish white area, dilated follicular openings and vasodilation (Fig. 2). Histopathologically, atypical squamoid cell nests had proliferated in a lobular fashion from the dermis to subcutaneous tissue. There were no atypical cells in epidermis (Figs. 3a and b). The tumor stroma in the upper dermis showed significant vasodilatation. Those atypical cells were identical to primary tumor cells in the hypopharynx. Based on these findings, a diagnosis of skin metastasis from hypopharyngeal SCC was made. Then, chemotherapy, operation and radiation were done.

### DISCUSSION

Cutaneous metastases commonly appear as round, discrete and painless nodules, which can have a firm, rubbery or fixed consistency. They can occur as a single lesion or multiple lesions anywhere on the body but are found predominantly on the anterior trunk or on the head and neck region.<sup>3</sup> The average survival time of patients with cutaneous metastasis is a few months.<sup>4</sup> Cutaneous metastases occur in 0.7 to 9% of all patients with cancer, and the most common primary tumors associated with skin metastasis are breast cancer in women and lung cancer in men.<sup>5</sup> Head and neck SCC rarely metastasizes to any areas of the skin. The most common sites are the chest wall (28.4%) and abdomen (20.2%). In descending order of incidence, other sites are the extremities (12%), neck (11%), back (11%), scalp (7%), pelvis (6%) and face (5%).<sup>2</sup> The nasal tip is, however, an extremely rare site for cutaneous metastasis. In the English medical literature, 18 patients with nasal tip metastases, including the one in this paper, have been documented over the last 20 years, more than half of which were associated with lung cancer.<sup>6, 7, 8, 9, 10</sup> Other main sites of primary cancer for cutaneous metastases to the nasal tip include the kidney<sup>11, 12</sup> and esophagus.<sup>7</sup> To our

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Abbreviation: SCC, squamous cell carcinoma

knowledge, only 4 patients with nasal metastasis originated from primary malignancies on head and neck regions.<sup>6, 8, 9, 10</sup> Nasal tip metastasis was from hypopharyngeal SCC in 1 of them;<sup>6</sup> from basaloid SCC of the larynx in 2 others<sup>8, 9</sup> and from pharyngeal rhabdomyosarcoma in the rest.<sup>10</sup> Nasal metastasis in our patient probably occurred through hematogenous dissemination.

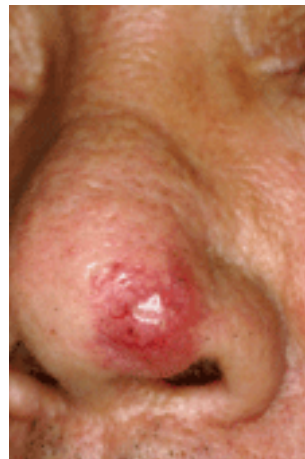
It is not absolutely clear whether the primary site of the cutaneous metastatic foci was esophageal or hypopharyngeal. The esophageal SCC, however, was a moderately to well-differentiated tumor in histological grading, remained only in the esophageal mucosal epithelium, and showed no regional lymph node metastases. On the other hand, the hypopharyngeal SCC was an undifferentiated tumor and metastasized to regional lymph nodes. Therefore, it seems reasonable to assume that the nasal lesion was metastasis from the hypopharyngeal SCC.

Soyer et al.<sup>13</sup> reported a case of a patient with nasal skin metastasis from breast cancer in 1990 and first introduced the term “clown nose” for describing the characteristic clinical feature. However, the term is not widely accepted now. Differential diagnosis of “clown nose” should include rosacea, pseudolymphoma, sarcoidosis and metastatic skin cancer. In patients with malignant disease, biopsy should be performed for any suspicious skin lesion even if it is in an unusual location. In a patient like ours, “clown nose” might be a symptom of cutaneous metastasis. The term “clown nose” proposed by Soyer et al.<sup>13</sup> should be appreciated more. When clinicians note a “clown nose”, they should consider malignancies in the neck and chest areas.

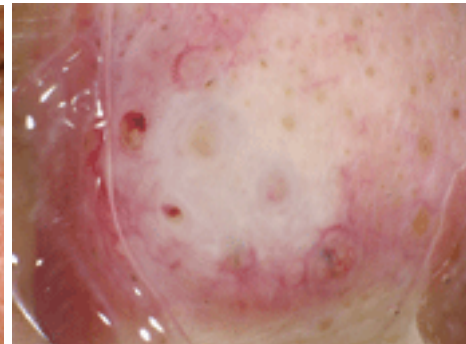
*The authors declare no conflict of interest.*

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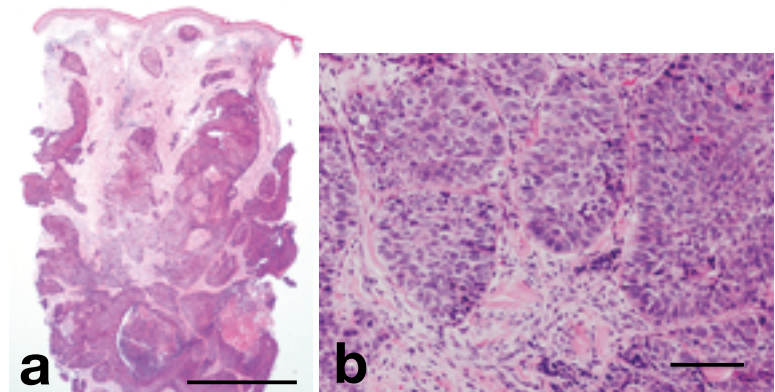
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**Fig. 1.** Clinical feature: a red nodule on the nasal tip.



**Fig. 2.** Dermoscopic image: a yellowish white area, dilated pores and vasodilation.



**Fig. 3.** Histopathologic examination: nests of atypical cells from the dermis to subcutaneous tissue (hematoxylin and eosin).

**a:** Bar = 1 mm.

**b:** Bar = 100  $\mu$ m.

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