Subcutaneous Nodules on the Chest: Does the Skin Metastasis Indicate Terminal Stage of Cancer?

Göğüs Ön Duvarında Cilt Altı Nodüller: Cilt Metastazı Kanserin Son Dönemine mi İşaret Eder?

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ABSTRACT The nasal vestibule is lined by squamous epithelium and tumors originating from that site are almost always squamous cell carcinomas. However, these tumors constitute a relatively small percentage of all head and neck cancers. Squamous cell carcinomas of the nasal vestibule rarely metastasize, but when they do, the submandibular lymph nodes adjacent to the facial artery and vein are the first group at risk. In this study, the interesting clinical picture of metastatic squamous cell carcinoma of the nasal vestibule was presented and skin metastases of head and neck cancers were discussed with in the light of the existing body of literature.

Key Words: Neoplasm metastasis; head and neck neoplasms; nasal cavity

ÖZET Nazal vestibül bölgesi skuamöz epitel ile örtülüdür ve buradan kaynaklanan tümörlerin hemen hepsi skuamöz (yassı) hücreli karsinomlardır. Nazal vestibül bölgesi tümörleri, tüm baş ve boyun kanserleri içinde nispeten küçük bir yüzde teşkil eder. Nazal vestibülün skuamöz hücreli karsinomları nadiren metastaz yapar ve metastaz yaptıklarında da fasiyal arter ve fasiyal vene komşu olan submandibüler bölge lenf nodları risk altındaki ilk lenf nodu grubudur. Bu çalışmada, metastatik bir nazal vestibül skuamöz hücreli karsinomunun ilginç klinik seyri sunulmuş ve konu ile ilgili literatürlerin ışığında baş ve boyun kanserlerinin cilt metastazları tartışılmıştır.

Anahtar Kelimeler: Neoplazm metastaz; baş ve boyun neoplazmlar; nazal kavite

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The nasal vestibule is delineated inferiorly by the floor of the nose, and on each side by the inner aspects of the nasal alae. Almost all of the tumors originating from this site are squamous cell carcinomas since this region is lined by squamous epithelium.[1] However, squamous cell carcinoma of the nasal vestibule constitutes a relatively small percentage of all head and neck tumors.[2-4]

Squamous cell carcinomas of the nasal vestibule are usually low grade and well-differentiated tumors. They are histologically indistinguishable from those of the facial skin, however they have a far worse prognosis owing to their localization.[5] These carcinomas may extend deeply into the nasal cavity or anteriorly to the upper lip, or they may present with regional or distant metastases.[1] Although vestibular carcinomas metastasize rarely, when they do, the first target of metastasis is the cervical lymph nodes, especially

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the submandibular nodes.[2,3] Both regional and distant metastases are uncommon and are the indicators of poor prognosis.[6-8]

We aimed to introduce the unique clinical presentation of metastatic squamous cell carcinoma of the nasal vestibule at the terminal stage of the disease, and to discuss skin metastases of head and neck cancers.

CASE REPORT

A 63 years old man presented with a 4 months history of a nasal mass on the right side of the nasal bone 2 years after the treatment of his nasal vestibule carcinoma. He was suffering from local pain and burning sensation at the site of the lesion. He had surgery and radiation therapy for squamous cell carcinoma of the nasal vestibule, a T2N0M0 lesion. Surgery consisted of tumor resection and nasal reconstruction with a forehead flap. Since the surgical margins contained tumor histologically, he had adjuvant radiation therapy. The patient was then lost to follow-up for 13 months.

On physical examination, a 1 x 1 cm sized hyperemic and crusted lesion was seen on the right side of his nasal bone. Both computerized tomography (CT) and magnetic resonance imaging (MRI) of the paranasal sinuses and nasopharynx revealed a right-sided, 14 mm sized solid nasal mass which was located medial to the orbit and anterior to the ethmoid cells. Subsequently, an incisional biopsy was obtained from the mass and histologic examination reported that it was recurrence of the primary disease.

Physical examination revealed numerous subcutanous nodules on both anterior and lateral walls of the left chest. Subsequently, it was recognized that subcutanous nodules were located around a prominent vein running laterally to the chest wall (Figure 1). Moreover, this vein gave some branches through some of the nodules. These hard, mobile and non-tender nodules varied in shape and size. One of them was excised for histologic examination which revealed metastatic squamous cell carcinoma (Figure 2). Then, a meticulous diagnostic work-up was performed in order to find out any other metastases or primaries. No palpable mass

FIGURE 1: Subcutaneous nodules (arrows) located around a prominent vein (arrowheads) running laterally to the chest wall.

was found in the neck and there were no abnormalities on the endoscopic examination of the nasopharynx, hypopharynx or the larynx. There were no pathologic findings in the CT scans of brain, neck or abdomen. However, bilateral multiple parenchymal nodules were noticed on the thorax CT. Scintigraphy revealed focal activity on the left side of the mandible, right shoulder joint, right sternoclavicular joint, right clavicle and lateral part of right 5th rib. The patient suffered from severe respiratory distress during the second week of the diagnostic work-up. Then, a pulmonary insufficiency requiring endolarygeal intubation developed within few days. Consequently, the patient died of a sudden cardiopulmonary arrest.

DISCUSSION

Squamous cell carcinoma is the most common malignant tumor of the nose.[3] Squamous cancers can originate from the nasal vestibule, the lateral wall of the nose, the turbinates, the meatus or the septum.[3] They usually appear as polypoid papillary le-

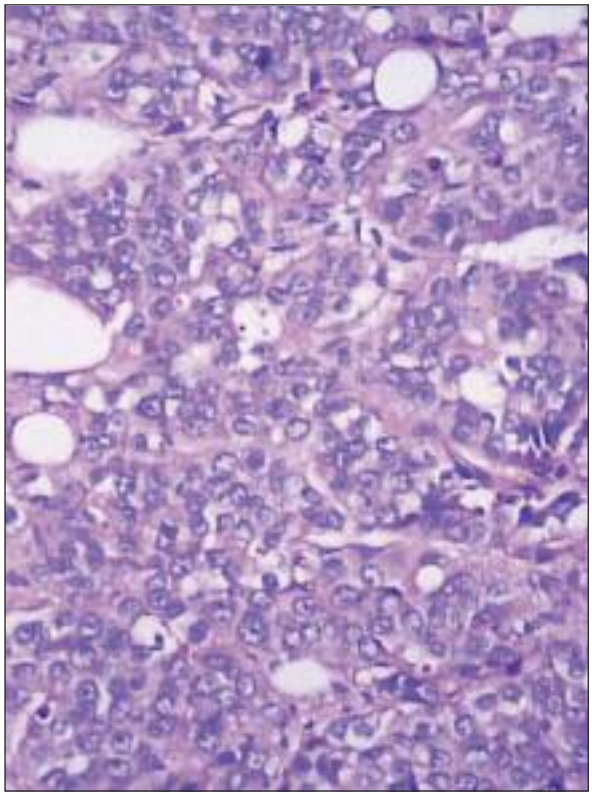

FIGURE 2: Tumor cells with elipsoid vesiculated nuclei within an eosinophilic cytoplasm. (Hematoxylin-eosin staining; original magnification x400).

sions on the lateral nasal wall. Rarely, they appear as vestibular carcinomas in the anterior portion of the nose.[4]

Despite its anatomical localization close to the nasal fossae and the facial skin, squamous cell carcinoma of the nasal vestibule has a unique nature and clinical behaviour, and its management differs from that of other nasal cancers.[4] These lesions are usually well-differentiated and low grade.[2] They may extend deeply into the nasal cavity or anteriorly to the upper lip.[1] They most commenly metastatize to regional lymph nodes, primarily to the submandibular, pre-auricular, nasolabial and facial nodes and occasionally to the jugulo-digastric and the submental nodes.[2-4] In some series, regional lymphatic metastases are encountered in about 10% of patients at the time of diagnosis.[6-9] The incidence of late regional disease is found to be less than 10%.[6,7] Metastasis to the regional lymph nodes, at initial diagnosis or during the follow-up, makes the prognosis worse, as two thirds of these patients would die because of tumor.[5]

Reingold has notified that the metastatic spread of internal carcinomas to the skin is commonly located near the site of the primary tumor.[10] Tharakaran et al. have mentioned that the usual mode of this spread would be via the lymphatic system.[11] Skin metastases of nasopharyngeal carcinoma have been found to appear between 5 to 48 months of treatment of the primary disease.[12-14] Moreover, Luk et al. have stated that skin metastasis of nasopharyngeal carcinoma usually correlates with advanced staging of the primary tumor, and may be the presenting symptom of disseminated disease.[12] Prognosis of cancer patients with skin metastasis are generally accepted to be poor in the literature, and life expectancy of these patients, from the occurence of skin nodules to death, is about 3 months.[15,16]

We encountered multiple subcutaneous nodules on the chest wall of our patient in addition to the recurrent nasal mass. There was no evidence of regional metastasis two years after the primary diagnosis. Histologic examination showed that subcutaneous nodules were the metastasis of the squamous cell carcinoma, and the nasal mass was found to be the recurrence of the primary disease. Additionally, bone scintigraphy revealed focal activity at the same localization with some of the nodules. One week after the histologic diagnosis, patient suddenly died of severe cardiopulmonary insufficiency. Possibly, the parenchymal nodules in the lungs were also metastatic. Although we had not have enough time for more extensive diagnostic work-up, regarding the sudden death after local relapse and distant metastasis, we considered that distant skin metastasis may indicate diffuse hematogenous spread or the terminal stage of cancer. On the other hand, the prominent vein and its branches near the metastatic subcutaneous nodules may imply lymphatic metastasis. However, meticulous investigation with more patients is required to support either one of these hypotheses.

Although skin involvement is not common in the head and neck malignancies, skin metastases of squmaous cell carcinomas of larynx, nasopharynx,

palatine tonsil, tongue base and uterine cervix, and the skin metastases of thyroid cancers and tracheal glomangiosarcoma have been reported in the literature.[12,14,16-21] However, distant skin metastasis from the squamous cell carcinoma of the nasal vestibule has not been reported yet. We believe that this study will give a new insight to clinicians for the skin metastasis of head and neck cancers.

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