Skin: An Unusual Site of Metastases in Nasopharyngeal Carcinoma

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Abstract
Nasopharyngeal cancer is a rare cancer in most part of the world, but commonly seen in natives of southern China, Southeast Asia, the Arctic, and the Middle East/North Africa. It is treated by radiotherapy and chemotherapy. This affection is highly predisposed to nodal and distant metastasis. Still, cutaneous metastasis is rarely seen. A few solitary skin nodules are the most common form of appearance. However, cutaneous metastases from nasopharyngeal carcinoma are extremely rare and associated with a poor prognosis. Herein, we present a case of a 39-year-old woman with widespread nodular skin metastases from undifferentiated nasopharyngeal carcinoma.

Keywords: Metastasis; Skin; Undifferentiated nasopharyngeal carcinoma

Introduction
Undifferentiated Carcinoma of Nasopharyngeal Type (UCNT) is a malignant disease related to Epstein Barr virus (EBV) infection. UCNT is characterized by a high potential for visceral metastases, especially involving bone, liver and lung [1]. Cutaneous metastases are exceptional and are associated with poor prognosis [2]. We report a case of advanced nasopharyngeal carcinoma with distant cutaneous metastases.

Case Presentation
A 39-year-old female patient with Undifferentiated Carcinoma of the Nasopharynx (UCNT) classified as T4N2M0 discovered following cervical adenopathy and otalgia. She had 6 courses of chemotherapy. Then cervico-facial radiotherapy was planned. During the sixth week of irradiation, she developed diffuse skin nodules on her arms and forearms of 1 cm to 3 cm (Figure 1, 2), which were biopsied and found to be skin metastases of a UNCT.

The updated extension workup showed pulmonary metastases. The evolution was fatal and the patient died after four months.

Discussion
Nasopharyngeal cancers, dominated by squamous cell carcinomas, especially of the Undifferentiated Carcinoma of Nasopharyngeal Type (UCNT), are particular tumors among the other cancers of the ENT sphere because of their evolution, the high potential for distant metastasis and the fact that they occur in young subjects without any classical risk factors such as alcohol or smoking [3]. Skin metastases of ENT cancers, especially nasopharyngeal cancer, are extremely rare, not exceeding 1% and are distinguished by their relatively poor prognosis [4]. Two mechanisms of cutaneous metastases have been described: “clonal expansion” due to genetic and epigenetic modifications, suggesting that cutaneous metastases represent the last step of tumor progression; and “the rare variant model”, which suggests that metastases arise by selecting rare, highly aggressive variants from the primary tumor [1]. Cutaneous metastases occur as a result of hematogenous spread for sites situated away from the primary tumor and lymphatic spread for sites adjacent to the primary tumor [1].

Usually, patients with skin metastases present with advanced initial stage of the disease (stage III and IV). In the reported case, the nasopharyngeal cancer was classified as stage III (T4 N2 M0). The median interval between initial diagnosis and skin metastasis is 118 months. It was 6 months in our patient [3]. In the study by Saeed et al. concerning 77 cases of cutaneous metastases, the lesions involved the trunk in 40% of cases, the head and neck in 28% of cases, the extremities in 18% of cases and several sites in 14% of cases [1]. The predominant sites of cutaneous metastases from
UCNT were the scalp, trunk, axilla, buttocks and limbs. Cutaneous metastases mostly present in the form of single or multiple rapidly growing subcutaneous nodules [1]. The treatment of skin metastases is not well codified. Given the very poor prognosis of this disease and the metastatic nature of the disease, treatment is generally palliative [4]. Surgical resection is impossible in most cases due to the presence of disseminated metastases. However, Yucet et al. showed that isolated cutaneous metastases can be treated surgically and that concomitant systemic therapy improved survival. Chemotherapy achieved a partial response. Radiotherapy can be proposed to patients ineligible for chemotherapy or who progress on chemotherapy [1]. The prognosis of skin metastases is often poor with a median survival of 3 to 7 months and an overall survival of 0% to one year [4].

**Conclusion**

Nasopharyngeal carcinoma with skin metastases carries a very poor prognosis [5]. It also indicates the presence of disseminated metastatic disease associated with high mortality [1].

**References**