

Parotid Melanoma of Unknown Primary Site: A Case Report

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Abstract

Background: Parotid melanoma is a very rare disease. Primitive intra-parotid localization is unusual. We report the case of a patient with a parotid localization melanoma without a known primary.

Case presentation: A 57-year-old woman who consulted for a progressively increasing left lateral cervical mass. A mass biopsy was performed. The histological and immunohistochemical analysis was in favor of melanoma. A complementary assessment in search of the primitive was without anomaly. The tumor is found to be unresectable after discussion of the case at a multidisciplinary consultation meeting. The therapeutic decision was to do palliative chemotherapy such as Carboplatine AUC2-Paclitaxel 80 mg/m² J1J8J1=J21 given the deteriorated general condition of the patient. The median of overall survival was 10 weeks.

Conclusion: Through this work, we have reported a rare and very aggressive case of intraparotid melanoma of unknown primary.

Keywords: Parotid • Melanoma • Prognosis • Cytoplasm

Introduction

Primary parotid melanomas are extremely rare tumors [1]. The great majority of them are metastatic cases; few cases of primary melanoma of the parotid gland have been reported in the literature. The cervical and facial localization of melanomas is present in around 20% of cases, and the parotid site has a poor prognosis because it is associated with a high risk of distant metastases [2].

We report the case of a patient with a parotid localization melanoma without a known primary.

Case Presentation

A 57-year-old woman who consulted for a progressively increasing left lateral cervical mass, evolving for 7 months without any other associated signs. The clinical examination found a patient in average general condition (PS 2). A polylobed mass at the left parotid region of 10 cm of large axis of firm consistency of bleeding violaceous color at contact was shown, combined with left jugular -carotid adenopathies measuring for the largest 1 cm (Figure 1). The dermatological examination was normal.

A cervical and facial tomography was performed, showing a large left lateral cervical mass measuring 100 mm of large axis infiltrating the sterno-cleido-mastoid muscle in its upper part and respecting other muscle structures with neighboring milimetric lymphadenopathies (Figure 2).

A biopsy of the mass was performed. At histological analysis, the presence of a tumor proliferation of high cell density, consisting of oval cells, arranged in diffuse sheets with sometimes clear appearances of the cytoplasm. The



Figure 1. A polylobed mass at the left parotid region of 10 cm of large axis of firm consistency of bleeding violaceous color at contact.

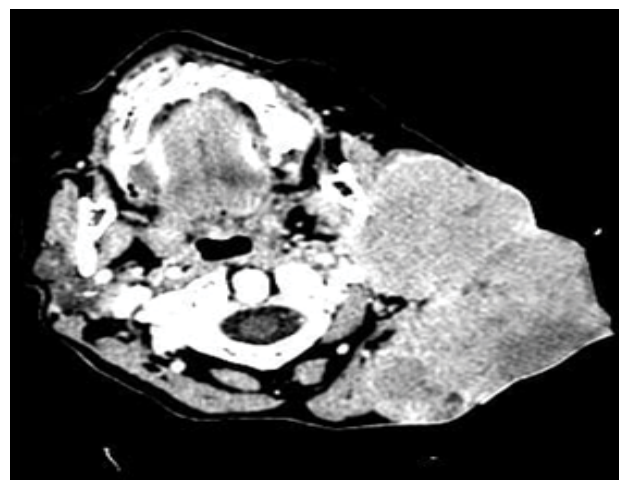


Figure 2. Axial scangraphic section showing a large left mass measuring 100 mm of large axis infiltrating the sterno-cleido-mastoid muscle in its upper part and respecting other muscle structures with neighboring milimetric lymphadenopathies

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Received 25 August 2020; **Accepted** 16 September 2020; **Published** 23 September 2020

nuclei are discreetly irregular and have a few nucleoli. The cytoplasm is quite abundant poorly limited eosinophils or clear. The vascularization is made up of a few capillaries with regular walls, without neuroendocrine aspect. Presence of rare mitoses estimated at around 5 mitoses /10 CFG (Figure 3).

Immunohistochemically, strong expression of nuclear and cytoplasmic S100 protein, SOX 10 in virtually all cell nuclei, and also a marked expression of HMB45 at the cytoplasmic level of very many cells. Melan A is expressed by many cells (Figure 4). The histological and immunohistochemical analysis was in favor of melanoma.

An assessment to search for primary melanoma was carried out: Ophthalmological examination, recto-sigmoidoscopy, esophagogastroduodenoscopy, nasofibroscope, thoraco-abdominopelvic tomography were without abnormalities. The case of patient was discussed in a multidisciplinary consultation meeting, the tumor is considered unresectable. The therapeutic decision was to do palliative chemotherapy such as Carboplatin AUC2-Paclitaxel 80 mg/m² D1D8D1=D21 given the deteriorated general condition of the patient.

The patient received two cycles of chemotherapy with no clinical response with clear tumor progression. She died a week after the last course of chemotherapy. Overall survival was 10 weeks.

Discussion

The primary localization of melanoma in the parotid is exceptional. In most cases, it is a metastatic disease of the primary skin of the head or neck [3]. Metastatic localization in the lymph nodes in the intra-parotid region represents 2.6% of secondary localizations of an unknown primary [4,5]. However, there are situations where the primary site of the melanoma is unknown, as in our patient. The diagnosis of primary malignant melanoma is defined by the presence of four criteria [6].

- i. Most of the tumor must be intra-parotid.
- ii. Absence of lymph node tissue in the tumor.
- iii. Absence of other localizations after ophthalmologic examination, meninges and after digestive endoscopy.

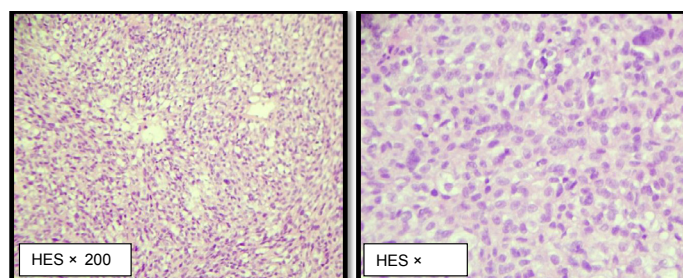


Figure 3. Histological analysis: Presence of a tumor proliferation of high cell density consisting of oval cells, arranged in diffuse sheets with sometimes clear appearances of the cytoplasm. The nuclei are discreetly irregular and have a few nucleoli. The cytoplasm is quite abundant poorly limited eosinophils or clear. The vascularization is made up of a few capillaries with regular walls, without neuroendocrine aspect. Presence of rare mitoses estimated at around 5 mitoses / 10 CFG.

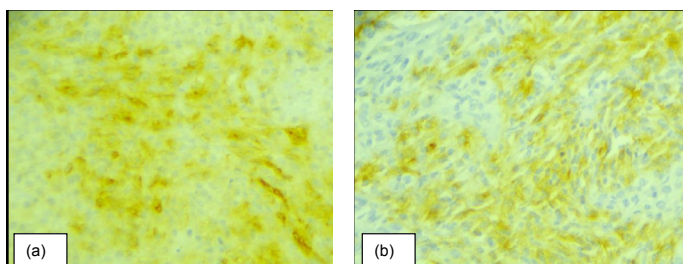


Figure 4. Immunohistochemical analysis: (a) Melan A is expressed by many cells. (b) Marked expression of HMB45 at the cytoplasmic level of very many cells.

- iv. No history of previous resection of malignant melanoma or progressive pigmented lesion.

The origin of parotid melanoma was still a topic of discussion. According to Greene et al. [7], the development of this type of cancer in the parotid is due to the fact that the parotid gland contains melanoblasts and melanin in the ductal and acinar cells and they also noted that the localization of melanomas were not in the lymph nodes. Takeda [8] also demonstrated in an autopsy case the presence of melanocytes in the basal and supra-basal layers of the parotid, which explains the appearance of melanoma at this level.

Therapeutically, for resectable tumors, superficial parotidectomy with cervical dissection remains the standard treatment. Radical parotidectomy has not shown any survival benefit [9,10]. Adjuvant radiation therapy is not a standard; indicated in high-risk patients for local control purposes [11,12].

For locally advanced and metastatic forms, there is no consensus regarding the treatment to be used as first-line because of the rarity of these tumors. Systemic treatment remains the most reasonable treatment option. Dacarbazine is the most used molecule with response rates ranging from 15 to 20%. Other molecules have been tested in the treatment of malignant melanoma with modest response rates such; taxanes, cisplatin and temzolomide.

The prognosis for these tumors is generally poor [2], as they are usually very aggressive tumors and especially if there is associated cervical lymphadenopathy. Due to the rarity of these tumors in the parotid, there are no well-defined prognostic factors that can help improve treatment management. Overall, the median survival rate for metastatic disease is 8 months [11]. In our patient, the median overall survival was 10 months.

Conclusion

Through this work, we have reported a very rare case of parotid melanoma of unknown primary, very locally advanced with secondary lymph node localizations associated with a review of the literature. Surgery could not be done due to the advanced nature of the disease. The treatment was chemotherapy combining platinum salts and taxanes, but the patient died after two cycles of chemotherapy, testifying to the aggressive nature of this type of tumor.

Consent for Publication

Consent from patient was obtained before publication of this case report.

Availability of Data and Materials

The data are available from the corresponding author on reasonable request.

Competing Interests

The authors declare that they have no competing interests.

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How to cite this article: Lamyae Nouiakh, Karima Oualla, Soumia Berrad and Hayat Erraichi, et al. "Parotid Melanoma of Unknown Primary Site: A Case Report." *J Cancer Sci Ther.* 12 (2020). Doi: 10.37421/jcst.2020.12.644