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RESEARCH ARTICLE

MELANOMA OF ORAL CAVITY: A CASE REPORT OF AN UNUSUAL PRESENTATION

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Abstract

Oral mucosal melanoma is a rare malignancy with the tendency to metastasize and locally invade tissues more readily than other malignant tumor of the oral cavity. It occurs approximately four times more frequently in the oral mucosa of the upper jaw usually on the palate or alveolar gingiva. The chameleonic presentation of malignant melanoma, its asymptomatic condition, rarity of the lesion, poor prognosis and the necessity of a highly specialized treatment are factors that should be seriously considered by the involved health care provider. We report a rare and interesting case of oral malignant melanoma of the upper gum, which was clinically and histopathologically diagnosed with a brief review of literature, has been discussed.

Introduction:-

Malignant melanoma results from the malignant transformation of melanocytes located in the epidermis, dermis, or mucosa and chorion, less commonly in internal organs. Oral mucosal melanomas represent 0.2 to 8% of all melanomas, 0.5% of malignant tumors of the oral cavity, and 48% of mucosal melanomas of the oral-nasal mucosa. The most common location (80% of cases) is the hard palate and the maxillary gum [1]. Despite their rarity, these lesions should be considered in the differential diagnosis of pigmented lesions of the oral mucosa due to their seriousness, rapid dissemination, and often grave prognosis.
The aim of this work is to present a case of melanoma of the oral cavity, the progression of which demonstrates the aggressive nature and poor prognosis of this tumor.

Case report:-

This is a 58-year-old male patient, with no notable history, who who has a right upper gingival massevolving for five months. The initial clinical examination reveals an ulcerated and proliferative lesion affecting the upper gum.

A CT of the facial massif showed a gingival upper right mass of 2x2.4 cm in contact with the the mucosa of the upper lip, extending upward to the root of the right nasolabial groove , with presence of a cervical lymph node in chain Ib measuring 15*30mm. The staging did not reveal any metastases. The patient underwent an excisional biopsy of the mass. The anatomopathological examination (Figure 1) objectified an alteration of the mucosa covered with squamous epithelium, the underlying chorion is infiltrated by an undifferentiated malignant tumor proliferation, with the presence of large cells with voluminous nuclei. Immunohistochemical complement showed that tumor cells are positive for HMB45, MELAN A, AE/AE3. Therefore, the diagnosis of melanoma was retained.The patient underwent tumor resection (partial maxillectomy) and right lymph node dissection (I, II, III, IV). The

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histopathological result confirmed a malignant tumor process of melanoma. An undifferentiated tumor infiltrating the palatal chorion with presence of one lymph node metastasis in 17 lymph nodes from the right lymph node dissection was identified. Subsequently, the patient underwent adjuvant radiotherapy on the tumor bed and the right supraclavicular area totaling 66Gy administered in 2Gy fractions over 33 sessions.The treatment was daily in five fractions per week. The treatment passed without incidence with good tolerance. After a follow-up of 3 years, the clinical examination and Imaging exploration did not show signs of loco-regional recurrence or distant metastasis.

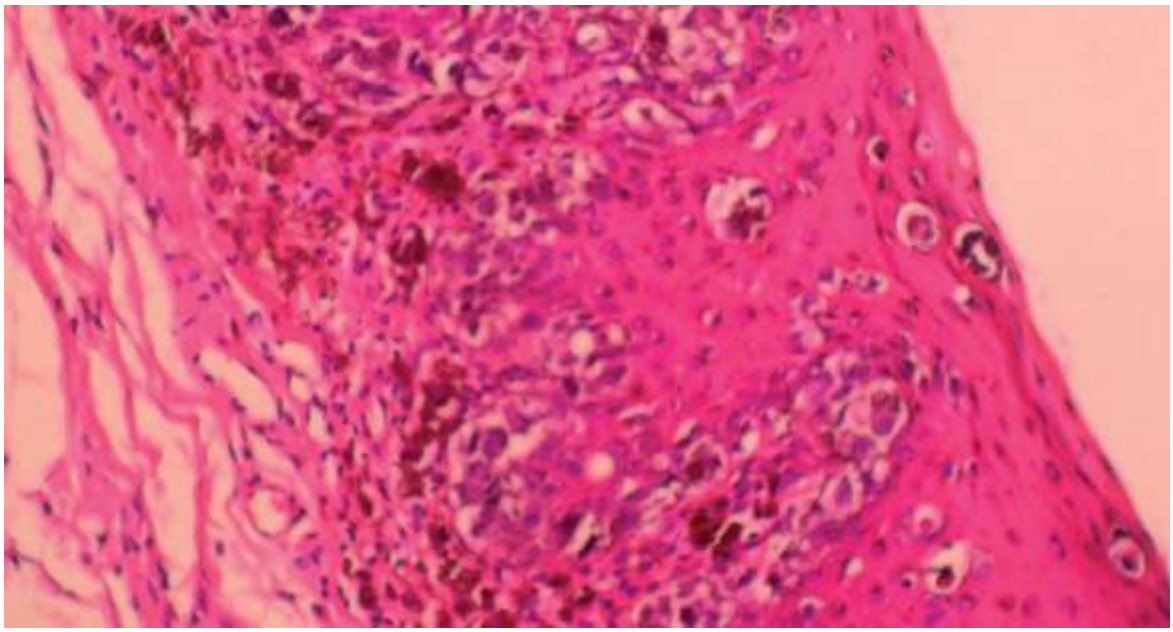

Figure 1:- Histological examination: melanotic malignant proliferation interesting the mucosa and invading the lamina propria.

Discussion:-

Melanoma arises from the malignant transformation of melanocytes. These cells, derived from neural crest cells, reside in the basal layer of the epidermis, superficial dermis, or mucosa. The progression of melanoma occurs in two phases: initially horizontally, then vertically invading the underlying chorion, soft tissues, and bone, leading to the appearance of dental mobility [2]. Oral melanoma is a rare tumor, accounting for 0.4 to 8% of all melanocytic tumors. It is highly invasive with a high degree of aggressiveness and malignancy, leading to a poor prognosis. The average age of onset is between 50 and 60 years, affecting men much more than women.

The clinical diagnosis is considered in the presence of a nodule or a patch, more or less extensive, with a non-homogeneous color ranging from light brown to anthracite black, with a smooth or irregular surface, often ulcerated and hemorrhagic. In 30% of cases, pigmentation would precede the appearance of the tumor (from ten months to several years) [3, 4]. Histopathological examination confirms the diagnosis based on the existence of three criteria considered specific: the appearance of tumor cells - pseudo-epithelial, spindle, undifferentiated, or mixed, the presence of junctional activity, and the presence of melanin in tumor cells. In achromic forms, immunohistochemistry is essential for diagnosis. The medical history and clinical examination rule out an endobuccal metastasis of a cutaneous melanoma. The staging workup includes a cervicofacial CT scan or MRI, a thoracoabdominal CT scan, a bone scintigraphy, and if possible, a PET scan.

The differential diagnosis with a benign nevus is based on morphological analysis following the modified ABCDE rule: the nevus becomes asymmetrical with irregular borders, darker or heterogeneous color. Evolution is indicated by the lesion diameter being greater than 6 mm or increasing. The permanent extension of the lesion, which changes not only in size but also in shape, color, and relief, is also a criterion for the differential diagnosis between a nevus and a melanoma [5]. The prognosis of melanomas varies depending on the different anatomoclinical forms and locations. Oral melanomas have a particularly bleak prognosis, mainly due to late discovery, often at an advanced stage of vertical invasion, after involvement of the deep chorion and vessels, in the absence of obvious functional

signs. The diagnosis of achromic melanoma often presents difficulties, which often leads to delays in management and further worsens the prognosis [6].

Melanomas of the oral cavity demonstrate a strong propensity for lymphatic dissemination, with metastatic lymph nodes present in 20% of cases at the time of diagnosis [5, 7]. At an advanced stage, in the presence of a large and infiltrating tumor, it often becomes impossible to accurately determine the point of origin and the variety of melanoma.

When detected earlier, at the intraepithelial stage (melanoma in situ) or at the initial stage of chorion invasion, it becomes easier to distinguish between different varieties of melanoma, although the prognosis remains bleak.

The average survival of patients affected by oral melanoma is generally 2 to 3 years, with a survival rate rarely exceeding 25% at 5 years [8, 9]. Treatment is based on surgical excision, with or without radiotherapy and chemotherapy.

Surgical excision should be as wide as possible, extending at least 1 cm beyond the tumor margins. This radical surgical approach represents the best strategy to offer the patient the best prospects for survival [10, 11].

Some authors recommend systematic lymph node dissection, while others believe it is indicated only when confirmed presence of metastatic lymph nodes [12]. Others rely on the sentinel node: this initial lymph node can be identified by injection of methylene blue or a radiotracer around the melanoma. Once located, the lymph node is removed and subjected to histological analysis. Lymph node dissection is considered only if metastasis or micrometastasis is detected [13]. Although these tumors are poorly radiosensitive, radiotherapy may be considered as a neoadjuvant treatment for large, unresectable tumors or in cases of lymph node involvement with capsular breach. It can also be used as an adjuvant therapy, providing better local control without significantly altering survival [14, 15]. Chemotherapy and immunotherapy protocols do not appear to be curative at present. The literature also reports the possibility of combining a conservative surgical approach with CO2 laser treatment, including the extraction of teeth related to the tumor [16].

Conclusion:-

Oral melanomas, despite their aggressiveness, present a pathophysiology that is still poorly understood. The diagnosis of melanoma is generally straightforward when it is a secondary localization with a known primary tumor. However, it becomes more complex when it is a primary tumor without identified antecedents. The ABCDE diagnostic criteria (Asymmetry, Irregular Borders, Dark Color, Diameter greater than 6 mm, Evolution), initially proposed for cutaneous melanomas, can also serve as diagnostic aids for oral melanomas. It is essential to excise any unpigmented or suspicious pigmented lesion for histopathological analysis. While prevention plays a key role in cutaneous melanomas, it remains unfortunately impossible for mucosal melanomas due to unknown risk factors. Therefore, training healthcare professionals in systematic examination of the oral mucosa and recognition of high-risk lesions is essential to hope to modify the prognosis of primary oral melanomas.

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