Oral Metastasis on the Floor of the Mouth and on the Cheek: A Short Review
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Abstract:
Among the malignant pathologies of the oral cavity we can find oral metastasis, fortunately quite rare. Only 33% of oral metastatic lesions were seated in the soft tissues, while the bone tissues are the most affected. We had found in Pubmed literature only 7 cases of oral metastasis on the floor of the mouth with the keywords “oral metastasis in the floor of the mouth”, “floor of the mouth metastasis”; we found only 5 cases of oral metastasis on the cheek with keywords “oral metastasis on the cheek”. The primary tumors, average age of patients, diameter of the metastatic lesions on the floor and on the cheek are analyzed in this short review and compared with previous review of the literature when it was possible. Oral lesion of 54 mm of maximum diameter was reported. This fact underlines how this oral disease can sometimes be misunderstood, and the importance of regular checks in patients who already have a diagnosis of malignancy.

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INTRODUCTION
Metastasis to the oral cavity is a rare event and constitutes 1% of all oral cavity malignancies [1]. Oral cavity metastasis are mostly observed in the jaws compared to the soft tissues, particularly in the posterior area of the mandible. The most recent review on the oral soft tissue metastasis reported that only 33% of oral metastatic lesions are seated in the soft tissues [1]. This review analyzed 412 oral soft tissue metastasis in a period between 1937 and 2015 documented in the literature, and gum was the site most involved [1]. One of the most important malignant disorder that involves the floor of the mouth is oral squamous cell carcinoma, that in the 30% of cases develops in the floor of the oral cavity [2]. Rarely other malignant tumor could occur in the mouth’s floor such as liposarcomas [3]. In the cheek the oral carcinoma and other malignant disorders are very rare, but a case of lymphoma has been recently described [2, 4].

MATERIALS AND METHODS
For our research we used as a source the PubMed database, inserting the keywords: “floor of the mouth metastasis” and 481 articles appeared, meanwhile inserting the keywords “oral metastasis on the cheek” 168 articles appeared. All the articles that had at least the abstract in English were taken into consideration and that they documented at least one case of metastasis of the floor of the oral cavity or of the cheeks. Case series in which single cases of involvement of the floor or cheeks were documented, were included.

Previous literature reviews and case reports or case series not supported by histological examination were excluded.

RESULTS
We found 7 cases of metastasis on the floor of the mouth and 5 cases on the cheeks, following our selection criteria.

The primary tumors that determined the development of metastases on the floor of the oral cavity were all different. In one case the primary tumor was a lung carcinoma [5], in another case was cholangiocarcinoma [6], also a case of pleuric mesothelioma [7], in one case a Hemangiopericytoma [8], one case concerned a thyroid carcinoma [9], one case involved hepatic carcinoma [10], and finally a renal cell carcinoma [11]. 5 patients were male and 2 female. The average age of those patients involved is 68,1 years. In 4 cases the size was reported.

In the case of pleuric mesothelioma [7] the maximum diameter was 54 mm; in the case of lung carcinoma the maximum was 40 mm [5]; in case of hemangiopericytoma and in the case of...
renal cell carcinoma [8, 11] the maximum diameter was 30 mm. The primary tumors that caused oral metastasis on the cheek were all different too. In a case the primary site was not reported [12]; in a case was thyroid carcinoma [13]; in a case was breast cancer [14]; in a case was a kidney’s tumor [15], and finally a stomach carcinoma [16]. The average age of those patients involved is 55, 25 years, but in one case the age was not reported [13]. 3 female patient showed cheek metastasis and only one was a man, but in one case the gender was not reported [12]. In 2 cases the oral metastasis appeared before that the patient have had a diagnosis of the primary cancer [12].

DISCUSSION

In the most recent review on oral soft tissue metastasis [1] you can find that the average age is lower than our average age found, but males are more involved than female patients. The data about the diameter are only 4, so it is not possible to do a comparison. In the case of pleuric mesothelioma [7] the maximum diameter was 54 mm and it demonstrate the importance of observing the oral floor during a dental examination visit in patients suffering from neoplastic diseases. In the scientific literature Hirshberg et al. reported that about 25% of the metastatic lesions occur before the cancer in other part of the body [17]. However, this data refers to all oral lesions including those of hard tissues, therefore it is not possible to establish a comparison.

CONCLUSION

Although oral soft tissue metastases are very rare, it is important in patients with cancer to make periodic dental visits to intercept oral lesions as quickly as possible, before they reach very large dimensions.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

REFERENCES