

ANGIOSARCOMA OF THE ORAL CAVITY

Emil Sarachev, G. Mateeva
*Department of Oral Surgery, Faculty of Dentistry,
Medical University - Plovdiv*

ABSTRACT

An angiosarcoma is described, localized in the oral cavity and diagnosed rather late after its marked manifestation.

The authors focus on the differential diagnosis of hemangioendothelioma and hemangiopericytoma, recommending early and relevant studies in cases of tumour invasion in the oral cavity.

Key words: angiosarcoma, oral cavity

Angiosarcoma is one of the most malignant connective tissue tumours. According to some authors, this type of tumour is presented in specialized publications with some variation (1). There is inconsistency in the data on age-related tumour involvement. Some authors think that it affects predominantly mature age, whereas others are of the opinion that the tumour occurs in young age (2, 4, 7). No difference by gender has been found out.

Angiosarcoma is observed predominantly on the trunk and limbs (more specifically the thighs). The oral cavity is one of the sites where it has rarely been diagnosed (3, 5, 6). Many authors have reported that for many years of professional experience they have rarely observed cases of hemangioendothelioma, pointing out that the latter is difficult to diagnose and treat.

In the present report we present the case we observed:

The patient V.H.V., aged 72, was admitted with a diagnosis of hard palate carcinoma, suspected osteoblastoclastoma; clinical diagnosis - hard palate carcinoma resulting from pulmonary metastasis.

According to the patient's report, the condition manifested itself a year ago with a small tumour to the left of his palate, the size of a hazelnut, which has started to grow rapidly in the last two months before his admission for treatment. One year prior to his seeking a specialized medical aid, he had a profuse nosebleed. An intraoral tumour mass was found, the size of a hen's egg, spontaneously bleeding at some places and occupying exclusively the left half of the hard palate. (Fig.1). Skull radiography showed shadowing of the maxillary sinus and shifting of the pyriform aperture to the right. The right nostril was infiltrated by the tumour mass. Lung radiography revealed stripy, at places

more peculiar spotty shadows in the pulmonary areas, which were likely to be related to the principal disease.

Lymph node scintigraphy disclosed lack of activity to the right, in the area of the submandibular lymph nodes, as well as those in the area of angulus mandibulae. In contrast to this, presence of certain activity was registered to the left.

The biopsy report stated hemangioendothelioma. Material was sent from the clinic to the Institute of Oncology – Sofia, diagnosed “malignant blastoma with features of angiosarcoma”, to be consulted with a histomorphologist.

Microscopically, the disease was characterized by formation of new vessels of anaplastic endothelial cells that formed at some places a lumen, either filled with blood or in the shape of substantial threads. In isolated areas necrotic zones were observed. As for the endothelial cells, their shape varied – they were spindle-shaped, polygonal or round. In some zones the cells were arranged in such a way that they looked like a single syncythium. The cavities observed were of a sinusoid type, empty or filled with erythrocytes. Sometimes the junction between the individual cavities consisted of angioblasts. The stroma was scarce, represented by intercellular substance, in which a loose reticulum of argyrophyllic fibres was observed.

Making a diagnosis only on the basis of the clinical picture, one might think of a giant cell epulis, melanoma or osteoblastoclastoma. All above-mentioned diseases can be easily differentiated one from the other following a histopathological investigation. Our case once again confirms the opinion that a precise diagnosis can be made only after a histopathological investigation. Difficulties in stating a diagnosis at the histopathological investigation may occur in differentiating between angiosarcoma on the one hand, and hemangioendothelioma and hemangiopericytoma, on the other.

The microscopic appearance of hemangioendothelioma is greatly varied. The immature endothelial cells are arranged either in the shape of threads, or at places they form capillaries. Endothelial cells may protrude into the capillary lumen. The stroma is scarce. Its constituent cells are polymorphous, with hyperchromatic nuclei. In hemangiopericytoma the endothelial cells are normal in appearance. The peripheral cells proliferate, and they are elongated or round, showing various degrees of polymorphism.

The histological appearance of angiosarcoma is also varied. The cells are polygonal, spindle-shaped or round. They line the vascular walls or aggregate in the shape of rosettes. The main index/marker in differentiating between angiosarcoma and hemangioendothelioma is the high degree of anaplasia of the neoplastic cells, which are difficult to differentiate from the blastoma cells.

In the case presented extremely undifferentiated cells were observed – blast cells, forming lumina at some places, filled up by erythrocytes. The stroma was extremely scarce.

The data show that whenever tumour invasion is observed in the oral cavity, and it is smooth, grey in colour and spontaneously bleeding to the touch, angiosarcoma should be considered in the differential clinical diagnosis. With view to this, relevant investigations should be performed in due time, contributing to a precise diagnosis and timely operative treatment.



Fig.1.

REFERENCES

1. Abdullah B. H., Yahya H. I., Talabani N. A., Alash N. I., Mirza K. B. - Gingival and cutaneous angiosarcoma., *J Oral Pathol Med.* 2000 Sep; 29(8) :410-2.
2. Fanburg-Smith J. C., Furlong M. A., Childers E. L. - Oral and salivary gland angiosarcoma: a clinicopathologic study of 29 cases., *Mod Pathol.* 2003 Mar; 16(3):263-71.
3. Messina S, Notarantonio A, Pancotti G, Feyles E. - Primary sarcomas of the maxillofacial area. The clinical assessment of a case of angiosarcoma with a rare location., *Minerva Stomatol.* 1993 Jan-Feb;42(1-2):57-62.
4. Pandey M., Thomas G., Mathew A. et al., - Sarcoma of the oral and maxillofacial soft tissue in adults., *Eur J Surg Oncol.* 2000 Mar; 26(2):145-8.
5. Pisciole F., Leonardi E., Scappini P., Cristofolini M.. - Primary angiosarcoma of the gingiva. Case report with immunohistochemical study., *Am J Dermatopathol.* 1986 Oct;8(5):430-5.
6. Yamaguchi S., Nagasawa H., Suzuki T. et al., - Sarcomas of the oral and maxillofacial region: a review of 32 cases in 25 years., *Clin Oral Investig.* 2004 Jun;8(2):52-5.
7. Ziegler C. M., Hofele C., Kubler A., Zoller J., Born A. - Multi-local angiosarcoma of the oral mucosa., *Mund Kiefer Gesichtschir.* 1997 Nov; 1(6): 356-8.

Address for correspondence:

Assoc. prof. d-r Emil Sarachev
V. Tarnovo Str. 24; 4000 Plovdiv
Department of Oral Surgery, Faculty of Dentistry,
Medical University - Plovdiv