

AN UNCOMMON BENIGN TUMOR OF ORAL MINOR SALIVARY GLANDS: A CASE OF ONCOCYTOMA

ORAL MİNÖR TÜKRÜK BEZLERİNİN YAYGIN OLMAYAN İYİ HUYLU BİR TÜMÖRÜ: BİR ONKOSİTOMA VAKASI

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ABSTRACT

Oncocytoma is a rare neoplasm, representing approximately 1% of all salivary tumors. A 72-year old male was referred to our department with the complaint of wide swelling in his maxillary posterior region for several months. Clinical examination revealed a 4.0x3.0-cm-diameter, well circumscribed, soft, round mass on the left maxillary posterior alveolar crest adjacent to the palate. The surface of the lesion was lobular with purplish and brown colour. Total excision of this mass including surrounding healthy tissue was planned and it was easily removed under local anaesthesia. Light microscopic examination indicated an oncocytoma.

The first case of oncocytoma located in the left maxillary posterior alveolar crest adjacent to the palate is reported along with an update of the literature in the presented case report.

Key Words: Oncocytoma, Intraoral, Minor Salivary Gland .

Oncocytoma is a rare, benign, and well circumscribed salivary gland tumor composed of oncocytic cells surrounded by a fibrous capsule.¹ Oncocytes are large, epithelial cells with a granular eosinophilic cytoplasm and small, centrally located nuclei.² These cells, as viewed with electron microscopy, demonstrate numerous swollen mitochondria, which fill their cytoplasm.¹

ÖZET

Onkositoma tüm tükürük bezi tümörleri içerisinde yaklaşık % 1 oranında görülen nadir bir neoplazmdir. 72 yaşında erkek hasta birkaç aydır süregelen üst çene posterior bölgedeki şişlik şikayeti ile kliniğimize başvurdu. Klinik değerlendirmede sol üst çenede palatine yakın posterior alveoler krette 4.0x3.0-cm çapında, iyi sınırlı, yumuşak, yuvarlak bir kitle görüldü. Lezyonun yüzeyi morumsu ve kahverengi renkli lobuler yapıdaydı. Kitlenin eksizyonu çevresindeki sağlıklı dokuları içerecek şekilde lokal anestezi altında kolaylıkla gerçekleştirildi. Işık mikroskopu değerlendirmesinde onkositoma tanısı konuldu.

Bu vaka ile palatine yakın posterior alveoler krette lokalize olan ilk onkositoma vakası literatür eşliğinde rapor edilmiş oldu.

Anahtar sözcükler: Onkositoma, İntraoral, Minör Tükürük Bezi

Tumors of salivary glands that consist predominantly of oncocytes are designated as oxyphilic granular adenoma, oxyphilic adenoma and eosinophilic adenoma.³ Nevertheless the term oncocytoma is extensively used in the literature.⁴

Oncocytomas are extremely uncommon lesions and constitute less than 1% of all salivary gland neoplasms. They have been described in various organs but most commonly occur in the parotid gland⁵ of

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persons older than 50 years of age.⁶ Oncocytomas arise very rarely from the minor glands of the maxillary sinuses, nasal cavity, larynx, tonsil, lacrimal sac, caruncle and adnexal structures of the eye.⁴ Reports of well-documented intraoral lesions arising from minor salivary glands are very rare.⁷

In this report, a case of oncocytoma arising in an intraoral minor salivary gland in the left maxillary posterior alveolar crest was presented.

CASE REPORT

A 72-year old male was referred to our department complaining of wide purplish soft tissue swelling in his maxillary posterior region for several months. Clinical examination revealed a 4.0x3.0-cm-diameter, well circumscribed, soft, rounded and typically maroon or purplish mass on the left maxillary posterior alveolar crest adjacent to the palate (Figure 1). There was no facial asymmetry, paresthesia, regional lymphadenopathy or pain. The surface of the lesion was lobular with purplish and brown colour resembling the peripheral giant cell granuloma. In radiographic examination many tooth radices which have chronic apical abscess were observed in the related area (Figure 2).

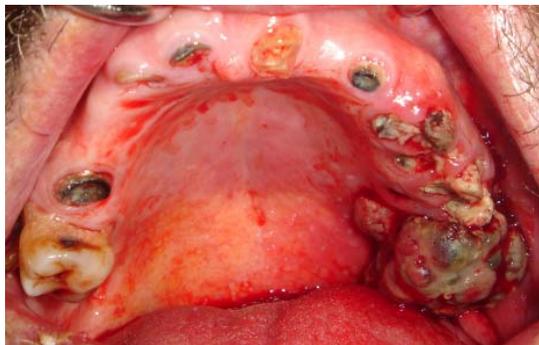


Figure 1. Preoperative intraoral clinical view of the patient.



Figure 2. Radiographic view of the lesion.

Peripheral giant cell granuloma was considered since the mass was rounded and typically maroon or purplish. For the purpose of the treatment, the total excision of the mass was planned. Written consent form was obtained from the patient. The tumor, including surrounding healthy tissue, was easily removed under local anesthesia.

Light microscopic examination indicated a solid tumor with a fibrous capsule which was divided into septums and containing capillary vessels. The lesion consisted of a sheet of polyhedral cells with abundant granular eosinophilic cytoplasm and large, round nuclei. The cells were characterized with prominent nucleolus (Figure 3). According to these findings the final diagnosis was determined as oncocytoma.

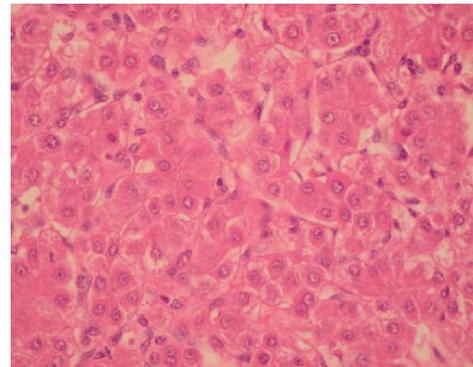


Figure 3. Histological findings of the mass under light microscope

DISCUSSION

Oncocytomas are composed of oncocytes, epithelial cells with a distinctive appearance characterized by a large size and abundant, granular acidophilic cytoplasm.¹ Oncocytes are packed with an excessive number of normal and abnormal mitochondria, corresponding to the cytoplasmic eosinophilic granules. The diagnosis can be confirmed by both light and electron microscopic identification of characteristic mitochondrial differentiation.^{4,7,8} Ellis and Auclair⁹ stated that the morphological features seen at the light microscopic level in routine hematoxylin and eosin-stained sections are sufficiently characteristic for identifying oncocytes. Also the phosphotungstic acid-hematoxylin (PTAH) is a useful method for identifying oncocytes.⁶

Oncocytomas are seldom found in people under the age of 50 and their prevalence rises with

increasing age.⁶ It commonly occurs in older adults with a peak incidence in between seventieth and nintieth.⁷ In this presented case the patient was 72-year old male.

Oncocytomas most commonly occur in the parotid gland and constitute 0.4% to 1% of all parotid tumours.¹⁰ According to the literature in the minor salivary glands of oral cavity the most frequent site of origin was the hard and the soft palate (57%), followed by buccal mucosa (26%).⁶ Kanazawa et al.⁶ reviewed several articles about oncocytoma in minor salivary glands and in none of these cases oncocytoma had been shown in posterior maxillary ridge region as in this report. Therefore, to our knowledge, this is the first case of oncocytoma of minor salivary glands located in the posterior maxillary ridge crest area.

Stomeo et al.¹¹ reported that the tumour size rarely exceeds 5.0 cm in diameter. In this case the mass was 4.0x3.0-cm in diameter and widely placed at maxillary posterior alveolar crest adjacent to the palate and buccal mucosa.

Oncocytoma's clinical behaviour is generally benign. Most reported cases were treated by surgical excision without recurrence.⁷ However, a recurrence rate of ≈20% has been reported due to incomplete surgical eradication or occult multifocality.¹² For this reason oncocytomas of the minor salivary glands should be carefully removed, together with a small margin of uninvolved healthy soft tissue, because these lesions occasionally have a thin incomplete capsule and rare malignant cases of oncocytic carcinoma have been reported.^{1,9,13} The tumour presented in the report was easily excised with the surrounding healthy soft tissue under local anesthesia.

The patient was recalled with regular intervals for control of the operation. However, the patient later died because of liver cancer.

In conclusion, this lobular mass of oncocytoma of minor salivary gland origin was, to our knowledge, the first to be located in the left maxillary posterior alveolar crest adjacent to the palate. Therefore, we aimed to add this information to the current literature.

REFERENCES

1. Neville BM, Damm DD, Allen CM, Bouquot JE. Oral and maxillofacial pathology. Philadelphia: WB Saunders Company; 2002.
2. Seifert G. Tumour like lesions of the salivary glands: the new WHO classification. *Pathol Res Pract* 1992;/188:/836–46.
3. Blank C, Eneroth CM, Jakobsson PA. Oncytoma of the parotid gland. Neoplasm or nodular hyperplasia? *Cancer* 1970;/25:/919-/25.
4. Chau MN, Radden BG. Intra-oral benign solid oncocytoma. *Int J Oral Maxillofac Surg* 1986; 15: 503–6.
5. Batsakis JG. Tumours of the head and neck: clinical and pathological considerations. Baltimore: Williams and Wilkins: 1979.
6. Kanazawa H, Furuya T, Murano A, Yamaki M. Oncocytoma of an intraoral minor salivary gland: report of a case and review of literature. *J Oral Maxillofac Surg* 2000; 58: 894–7.
7. Damm DD, White DK, Geissler RH Jr, Drummond JF, Henry BB. Benign solid oncocytoma of intraoral minor salivary glands. *Oral Surg Oral Med Oral Pathol* 1989; 67: 84–6.
8. Te-i H. An electron microscope observation on oncocytoma removed from the hard palate. *J Otolaryngol Jpn* 1969; 41: 867.
9. Ellis GL, Auclair PL. Tumors of the Salivary Glands. In: Atlas of Tumor pathology. Washington DC: Armed Forces Institute of Pathology; 1996.
10. Carlsoo B, Domeij S, Helander HF. A quantitative ultrastructural study of a parotid oncocytoma. *Arch Pathol Lab Med* 1979; 103: 471.
11. Stomeo F, Meloni F, Bozzo C, Fois V, Pastore A. Bilateral oncocytoma of the parotid gland. *Acta Otolaryngol* 2006; 126: 324–6.
12. Mandel L, Carrao V. Bilateral parotid diffuse hyperplastic oncocytosis: case report. *J Oral Maxillofac Surg* 2005; 63: 560–2.
13. Briggs J, Evans JNG. Malignant oxyphilic granular-cell tumor (oncocytoma) of the palate: Review of the recent literature and report of a case. *Oral Surg Oral Med Oral Pathol* 1967; 23: 796.

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