

Case Report

A rare case of basal cell adenoma arising in the soft palate

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ABSTRACT

According to the World Health Organization's (WHO) histological classification of salivary gland tumours, basal cell adenoma was classified as an independent tumour in 1991. Basal cell adenoma most commonly arises in the parotid gland and rarely in the minor salivary glands. Only 10 cases of basal cell adenoma arising in the palate have been reported so far in the literature, all of which have been managed surgically. We herein report a case of basal cell adenoma arising from the soft palate. The patient is a 46-year-old woman who noticed a mass on the left side of her palate since 8 years. After clinical and radiological examination, the patient was provisionally diagnosed with a benign palatal tumour. Excision of the tumour was performed by trans oral approach under general anesthesia. Histopathological examination was suggestive of basal cell adenoma, dermal type. No recurrence was noted after 1 year of follow up.

Keywords: Basal cell adenoma, Salivary gland tumour, Salivary gland neoplasm, Soft palate tumour

INTRODUCTION

Basal cell adenoma is a tumour of the salivary glands consisting of proliferation of basaloid like cells.¹ It is benign in nature. Majority of basal cell adenomas arise in the parotid glands.² Occurrence in minor salivary glands is very rare. Upper lip is the most common site among the minor salivary glands.^{3,4} Basal cell adenoma of the palate is very rare. We report a case of basal cell adenoma arising in the soft palate.

CASE REPORT

A 46-year-old female presented to the department of otorhinolaryngology with chief complaints of swelling in the soft palate region since 8 years and pain over swelling since 2 months. Swelling was initially small and gradually increased in size, a rapid increase in size has been noticed for 6 months. She has a history of ventricular septal defect.

Intraoral examination showed a well-defined solitary globular mass in the left soft palate region, measuring around 4×3 cm, extending anteriorly from the junction

between the hard and soft palate, extending up to the posterior border of the soft palate posteriorly, and medially from the midline of the soft palate to the buccoalveolar region laterally. A single ulcer of 0.5×0.5 cm is noted on the surface. On palpation, a firm, non-tender, and non-compressible swelling with a freely mobile overlying mucosa was noted. No palpable lymph nodes or masses were noted on neck examination (Figure 1).



Figure 1: Image showing mass in the soft palate region.

Radiographic examination was well defined, well encapsulated moderate homogenous enhancing T1 isointense, T2/STIR heterogenous iso to hyperintense signal solid mass lesion (4.2×4.7×4 cm) at posterior oral cavity causing external compression of posterior surface of left side of base of tongue and tonsillar region and closely abutting with left lateral surface of posterior aspect of hard palate, likely suggestive of minor salivary gland tumour (Figure 2).

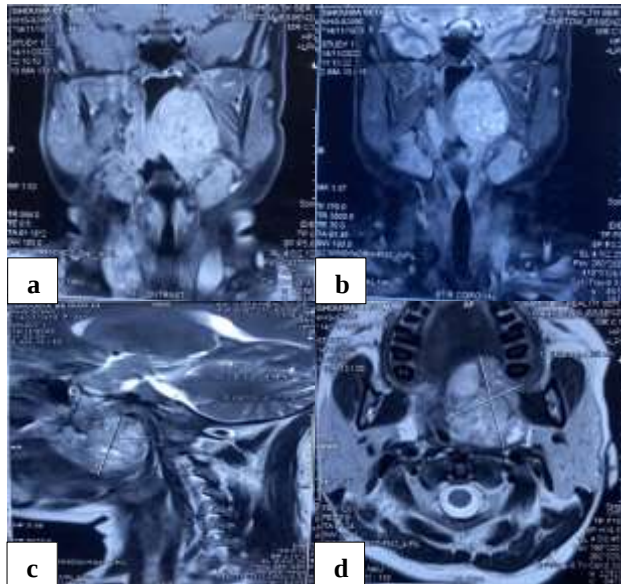


Figure 2 (a-d): Radiological images.

The provisional diagnosis was a benign palatal tumour, and endoscopic transoral excision of the palatal tumour was planned. The tumour was excised along with the capsule and specimen was sent for histopathological examination. The resected specimen measured 4×3×3.5 cm (Figure 3).



Figure 3: Post-operative image showing palatal tumour specimen.

Histopathological examination showed normal-looking minor salivary gland tissue and two small tumour nodules at the periphery which were composed of basaloid cells arranged in trabeculae, focal tubular and solid nests with peripheral palisading of cells. No evidence of

pleomorphism or necrosis was found in the tumour. There is no evidence of perineural invasion, capsular invasion, or lymphovascular invasion. Features are suggestive of basal cell adenoma, dermal type (Figure 4).

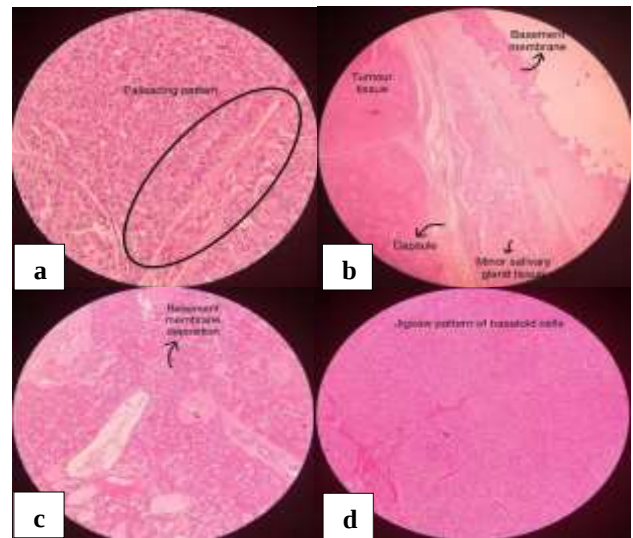


Figure 4 (a-d): Histopathological images.

DISCUSSION

Basal cell adenoma has been named so according to the “salivary glands tumours histological classification” of the World Health Organisation in 1991.⁵

Among the head and neck neoplasms, salivary gland tumours represent less than 3% and are uncommon.^{5,6}

So far in the literature, cases of cytologically diagnosed basal cell adenoma are 42 in number, with only 11 cases being palatal basal cell adenoma, including the present case.⁷ The patients' ages ranged from 24-70 years and there were 2 females and 8 males. All the cases were treated surgically.⁸

Most common site of incidence of minor salivary gland tumours is the palate. Basal cell adenoma usually arises from the major salivary glands, hence is relatively uncommon in the palate. It is most common in the parotid, followed by minor salivary glands of lips.³ Histological study must be done to establish the diagnosis. The most accurate method for diagnosis is biopsy. Histologically, there are uniform cells and regular basaloid cells which have two different morphologies and are intermingled. While the first type consists of small cells located in the periphery of the tumoural nests or islands with little cytoplasm and intensive basaloid-rounded nuclei, the second type is formed by large cells located in the center of the tumoural nests with abundant cytoplasm and pale nuclei. The tumoural nests are separated from the surrounding connective by a basal membrane like structure.⁹

In our case, the tumour was found to be arising from the soft palate. It was a slow growing tumour that gradually increased in size for 8 years. The histopathology showed basaloid cells arranged in trabeculae, focal tubular, and, in the majority of areas, arranged in solid nests with peripheral palisading of cells. These cells contain round to oval, benign-looking nuclei on the outside, and some of the tubules show bilayering with myoepithelial cells in the periphery. There are also nests and islands of tumour cells surrounded by eosinophilic membranous material. There were no mitotic figures and a perinuclear invasion was not seen. As the basal cell adenoma might have solid and cystic components, the imaging findings have been described as relatively non-specific. Although it can be cystic, it was purely solid in our patient. Histopathologically, it has four growth patterns: solid, trabecular, tubular, and membranous.^{2,10} Our case had a membranous pattern.

The patient was regularly followed up for a period of 1 year. During the initial follow up, the patient presented with velopharyngeal insufficiency, for which she is being observed, and further surgery will be planned for its correction, if necessary. Rest of the post-operative period is uneventful with no signs of recurrence after 1 year.

CONCLUSION

Basal cell adenoma of minor salivary glands arising from the palate is extremely rare, and the histopathological membranous pattern has a recurrence rate of 25-37%. Hence, a continuous and careful follow-up is required to rule out recurrence or malignant transformation.

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REFERENCES

1. Kudoh M, Harada H, Sato Y, Omura K, Ishii Y. A case of Basal cell adenoma of the upper lip. Case Rep Med. 2014;2014:795356.
2. Gupta N, Jadhav K, Ahmed MB, Amberkar VS. Basal cell adenoma in a relatively rare site. J Oral Maxillofac Pathol. 2009;13(2):101-4.
3. Yadav AB, Narwal A, Devi A, Kumar S, Yadav SK. Basal Cell Adenoma of Palate, a Rare Occurrence with Review of Literature. J Dent (Shiraz). 2015;16(3):291-5.
4. Alrohaimi FA, Alanazi FM, Almousa HM, Almutairi AB, Alqahtani SM. Basal Cell Adenoma of the Minor Salivary Glands in the Buccal Mucosa: A Rare Entity Arising in an Unusual Location. Cureus. 2023;15(3):e36580.
5. Seifert G, Sobin LH. The World Health Organization's Histological Classification of Salivary Gland Tumors. A commentary on the second edition. Cancer. 1992;70(2):379-85.
6. Jang M, Park D, Lee SR, Hahm CK, Kim Y, Kim Y, et al. Basal cell adenoma in the parotid gland: CT and MR findings. Am J Neuroradiol. 2004;25(4):631-5.
7. Kanaujia SK, Singh A, Nautiyal S, Ashutosh K. Basal Cell Adenoma of Parotid Gland: Case Report and Review of Literature. Indian J Otolaryngol Head Neck Surg. 2015;67(4):430-3.
8. Yoshimura S, Yamano Y, Koma A, Kita A, Yamatoji M. A rare case of basal cell adenoma arising in the palate. J Oral Maxillofac Surg Med Pathol. 2023;35(5):450-4.
9. García RG, Nam Cha SH, Munoz Guerra MF, Gamallo-Amat C. Basal cell adenoma of the parotid gland. Case report and review of the literature. Med Oral Patol Oral Cir Bucal. 2006;11(2):E206-9.
10. Bhagat Singh AD, Majumdar S, Ghosh AK, Gandhi L, Choudaha N, Sharma I, et al. Basal cell adenoma-clinicopathological, immunohistochemical analysis and surgical considerations of a rare salivary gland tumor with review of literature. Niger J Surg. 2015;21(1):31-4.

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