Basal Cell Adenoma – A Report of a Rarity in a Relatively Rare Site

Kavitha.M[1], Niveditha.B[2], Mutum Sangeeta Devi[2], Manju.J[3], Vishnu Priya.CK[4]

[1]Reader, [2]Senior Lecturer, Department of Oral Medicine and Radiology, Madha Dental College and Hospital, Kundrathur, Chennai, Tamil Nadu, India, [3]Senior Lecturer, Department of Oral Medicine and Radiology, Thai Moogambigai Dental College and Hospital, Dr.M.G.R Educational and Research Institute, Chennai, Tamil Nadu, India, [4]Senior Lecturer, Department of Oral Medicine and Radiology, Ragas Dental College and Hospital, Chennai, Tamil Nadu, India

Abstract

Basal cell adenoma is a rare benign neoplasm of the salivary gland. It preferentially occurs in the parotid gland and upper lip during the sixth and seventh decades of life. The clinical presentation most frequently seen is a slow-growing, asymptomatic, movable, round or oval, normally coloured submucosal mass measuring less than 3.0 cm in diameter, encapsulated and well circumscribed. Histologically, the tumor consists of a proliferation of the terminal duct epithelial cells forming islands and sheets with sparse of fibrous stroma, and numbers of small myoepithelial cells are present . Here is a report of a rare case of basal cell adenoma in a relatively rare site of palate presented to our department.

Keywords: *Basal cell adenoma, Monomorphic adenoma, Palate*

Introduction

Basal cell adenoma is a very rare benign neoplasm of the salivary glands and name derives from the basaloid appearance of tumor cells. It represents 54% of monomorphous adenomas and 1-3% of major salivary gland tumors and has an incidence of 7.5% among primary epithelial parotid gland tumors.[1]It occurs more common in the parotid gland and upper lip during the sixth and seventh decades of life, with female predilection (1:1.02).Palate is a rare site of occurrence.[2,3,4] Clinically, it presents as slow-growing, asymptomatic, round or oval, normally coloured well circumscribed submucosal mass.[1] Histologically, the tumor consists of a proliferation of the terminal duct epithelial cells forming islands and sheets supported by a fibrous stroma, and also the presence of myoepithelial cells. There are 3 subtypes of basal cell adenoma: solid, tubulo-trabecular, and membranous. [5] Although recurrence is rare, the membranous subtype, which is a hereditary variety of basal cell adenoma, has a 25% to 37% recurrence rate, possibly related to its multifocal nature, which impairs complete removal. [5]

Report of a Case:

A 52 yrs old female patient reported with a chief complaint of slow growing asymptomatic swelling in the left side of the palate of 3 months duration. On General examination, patient was healthy. There was no abnormalities of TMJ and lymph nodes. No abnormalities on extra-oral examination. Intraoral examination **(Fig 1)** revealed a well-defined oval shaped smooth surfaced swelling on the left posterior hard palate, extending anterio-posteriorly from the mesial aspect of 25 to the soft palate, Medio-laterally from palatal gingiva of 25-28 to 0.5 cm away from the midline, measuring approximately about 5x3 cms with no secondary changes and no surface pulsations. On palpation, the swelling was non tender, uniformly soft to firm in consistency, smooth, non-fluctuant, non-compressible, no blanching and does not yields on pressure, fixed to

the underlying tissues with well-defined borders with no discharge. Associated teeth 25, 27 were non-tender and vital. On aspiration, hemorrhagic tissue smear showed small clumps of plump spindle cells over a background of hemorrhage. Provisional diagnosis of **benign minor salivary gland tumor** in relation to the left posterior hard palate were considered. Differential diagnosis of Pleomorphic adenoma, monomorphic adenoma, Warthin's tumour, Palatal abscess in relation to 27, Palatal mucocele were included.

Fig 1.Intra oral Picture showing swelling in the left side of the palate

On radiological investigations, IOPAR, Maxillary cross sectional occlusal view **(Fig.2)**, OPG **(Fig.3)** and PNS **(Fig.4)** showed no radiographic abnormalities.

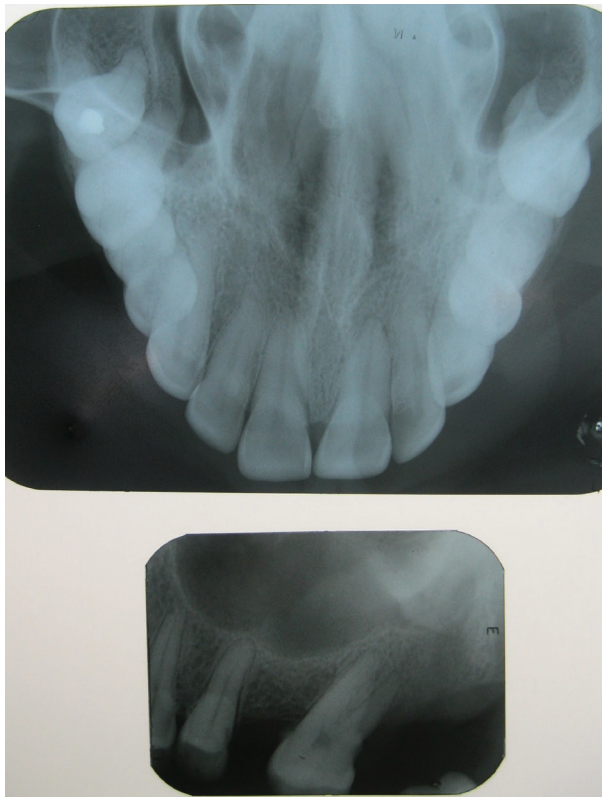

Fig 2.IOPA-24, 25, 26 region and Maxillary cross sectional occlusal view showing no abnormalities.

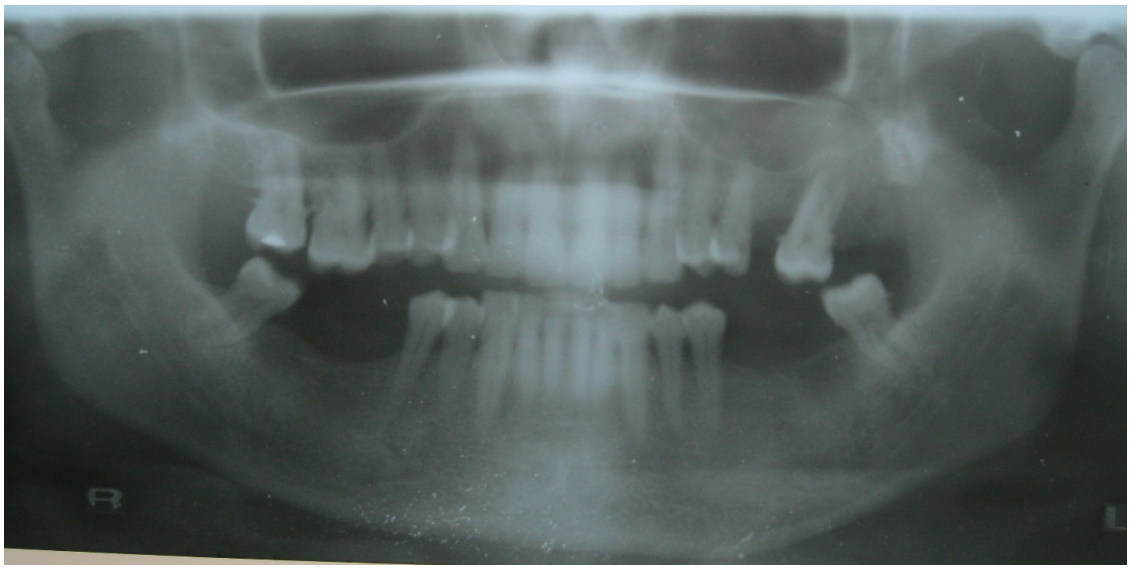

Fig 3. OPG view showing no abnormalities.

Fig 4.PNS view showing no abnormalities.

All laboratory findings were found to be within normal limits. Incisional biopsy of the lesion revealed relatively uniform, small, dark basaloid epithelial cells in the stroma, and is surrounded by a fibrous connective tissue capsule. Palisading at the periphery of the epithelial nests result in a 'basaloid' appearance **(Fig.5)** and is diagnosed as Basal cell adenoma in the minor salivary gland of hard palate.

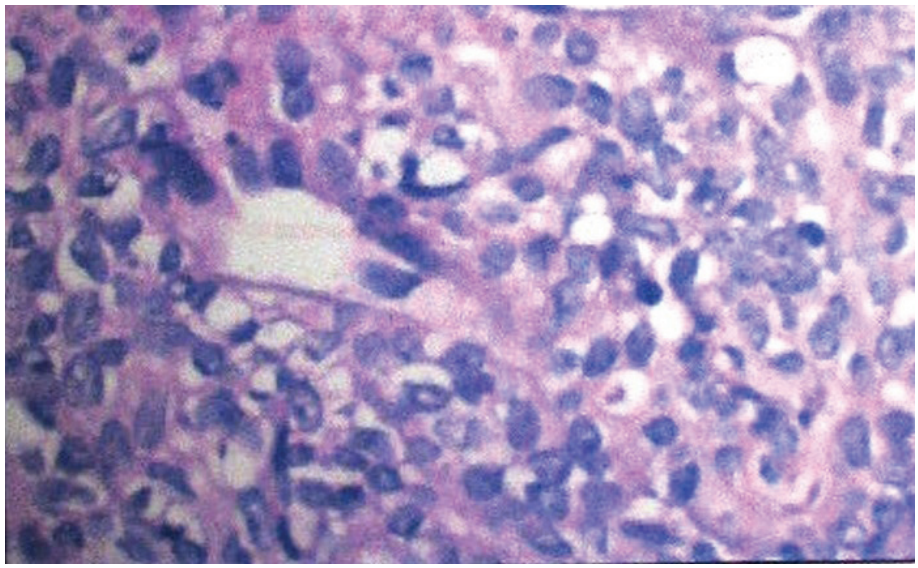

Fig 5.Histopathological picture showing basaloid cells

A wide surgical excision, including a small security margin through intra oral approach under general anesthesia was done with palatal obturator **(Fig.6)** and regular follow up is being done. Prognosis was good with no recurrence after 18 months of follow up.

Fig 6.Post-operative image with palatal obturator.

Discussion

Basal cell adenoma is a type of monomorphic adenomas. The salivary gland tumours are uncommon, which constitutes less than 3% of all neoplasms of head and neck. Although basal cell adenoma is the most common variant in the group of "monomorphic adenomas," it represents only 1% of all salivary tumors. It is most prevalent in the sixth and seventh decades of life [6,7,8,9], however, in our case, the patient was in the fourth decade of life, in contrast to the literature and has

female predilection. The basal cell adenoma occurs more frequently in the parotid gland, followed by upper lip. The development of these tumors in the buccal mucosa, palate, or lower lip is unusual. [2, 6, 7, 8] in the current case; the palatal location of the tumor did not fit the more frequent sites. Clinically, it presents as painless mass, enlarging slowly and frequently measures about 3-8 cms [10]

Malignant transformation to basal cell adenocarcinoma is rare but is suggested by some authors. Recurrence is rare, with the membranous subtype has a recurrence rate of 25% to 37% due to its multifocal nature, which impairs complete removal.[11] The treatment used in this case is the same proposed in the literature, consisting of complete surgical removal with an extra capsular limit. The patient had a satisfactory postoperative period, with complete healing of the operated area, and presents no signs of local recurrence 18 months after surgery

Conclusion

The present case, Basal cell adenoma is an uncommon salivary gland tumour presented in a relatively rare site. These rare cases should provide us an insight to the biologic behaviour and clinical course of the tumours and should be correlated with radiological & histopathological findings which help in accurate and timely diagnosis that can go a long way in the overall meticulous rehabilitation of the patient.

Conflict of Interest-Nil

Source of Funding- Self

Ethical Clearance- Nil (as it is a case report)

References

1. Gupta N, Jadhav K, Ahmed Mujib BR, Amberkar VS. Basal cell adenoma in a relatively rare site. Journal of Oral and Maxillo Facial Pathology 2009;13(2):101-104.
2. Thawley SE,Ward SP,Ogura JH. Basal cell adenoma of the salivary glands. The Laryngoscope 1974;84(10):1756-1765.
3. Mintz GA, Abrams AM, Melrose RJ: Monomorphic adenomas of major and minor salivary glands. Oral Surg Oral Med Oral Pathol 1982;53:375.
4. Chaw MNY, Radden BG: Intraoral salivary gland neoplasms: A retrospective study of 98 cases.J Oral Pathol 1986;15:339.
5. Kawahara A, Harada H, Akiba J, Yokoyama T, Kage M. Fine needle aspiration cytology of basal cell adenoma of the parotid gland: Characteristic cytological features and diagnostic pitfalls. Diagn Cytopathol 2007; 35:85-90.
6. Esteves ARF, Dib LL, De Carvalho ALV. Basal cell adenoma: A Case Report. J Oral Maxillofac Surg 1997; 55:1323-1325.
7. Neville BW, Damm DD, Allen CM et al: Salivary gland pathology, in Oral and Maxillofacial Pathology.Philadelphia,PA,Saunders,1995,p 347.
8. Bhat A, Rao M, Geethamani V, Shetty AC. Basal cell adenoma of the parotid gland: Cytological diagnosis of an uncommon tumor. Journal of Oral and Maxillofacial Pathology: JOMFP. 2015 Jan-Apr; 19(1): 106.DOI: 10.4103/0973-029x.157211.
9. Regesi JA, Sciubba JJ: Salivary gland diseases, in Oral Pathology. Philadelphia, PA, Saunders,1993, pp 270-271.
10. Shafer WG, Hine MK, Levy BM: Salivary gland tumors, in A textbook of Oral Pathology. Philadelphia, PA, Saunders,1958, pp 168-69.
11. 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 Suppl):291-295.