

Pleomorphic Adenoma of Palate

J.B. Garde¹, Megha Shah², Raunak Patwa³, Pinal Jain⁴,
Sudhir Khandale⁵, Pargatsingh Kathuriya⁶

1- Professor and Head, Department of Oral and Maxillofacial Surgery, Sinhgad Dental College and Hospital, Pune, India. 2,3,5- Post Graduate Student, Department of Oral and Maxillofacial Surgery, Sinhgad Dental College and Hospital, Pune, India. 4- Post Graduate Student, Department of Periodontology, Sinhgad Dental College and Hospital, Pune, India. 6- Post Graduate Student, Department of Oral and Maxillofacial Pathology, Sinhgad Dental College and Hospital, Pune, India.

Correspondence to:
Dr. Megha Shah, Off Sinhgad Road, Vadgaon (Bk), Pune –
411 041, India.

ABSTRACT

Pleomorphic adenoma is a benign neoplasm consisting of cells exhibiting the ability to differentiate to epithelial and mesenchymal cells. Pleomorphic adenoma is a salivary gland tumour commonly originating from the parotid gland or the submandibular gland. It is uncommonly seen involving the minor salivary glands. This case report aims to discuss a rare case of pleomorphic adenoma originating on the hard palate.

KEYWORDS: Adenoma; Minor Salivary Glands; Palate; Pleomorphic Adenoma

INTRODUCTION

Salivary gland tumours are rare tumours, representing only about 3% of all head and neck tumours.^{1,2} Pleomorphic adenomas are mostly found in the parotid gland, with about 6.5% occurrence in the hard palate region.³

The palate is the most common site amongst the minor salivary glands for pleomorphic adenoma to occur, but they can also occur in the upper lip, cheek, floor of mouth, larynx and trachea. Tumours of minor salivary glands lack a fibrotic capsule (if present, have a very thin capsule)⁴, which can give a false impression of an infiltrating mass. These tumours may also cause bony erosion.⁵

Lesions of the palate are commonly found involving the periosteum or bone. Approximately 25% of these tumors are known to undergo malignant transformation. Radical surgery is the mostly common treatment of choice for these tumours as inadequate resection leads to local recurrence.⁶

Presenting a case of a 15 year old female patient with PA of posterior hard palate and treated with surgical excision of tumour.

CASE REPORT

A 15 year old female reported to Sinhgad Dental College and Hospital with a chief complaint of swelling on the palate since 4 months (Figure 1). She did not have any other associated complaints. The swelling did not increase in size, since she noticed it 4 months back.

On examination, the swelling was firm, well circumscribed, non - tender lesion measuring 2.5 by 2 cm in size on the left side of the posterior hard palate extending from 25 up to 28 and mesio-distally around 1



Figure 1 : Intraoral presentation of swelling

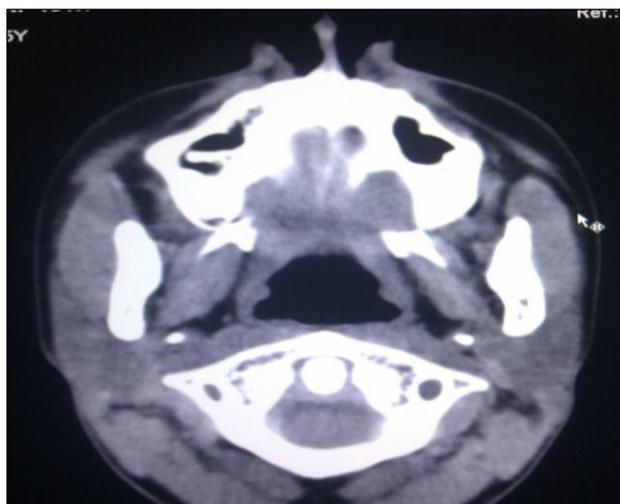


Figure 2 : CT Scan

cm away from midline. Overlying mucosa was pinkish with a smooth surface and no surface erythema or ulceration was noted. No regional lymphadenopathy was present. Her general, physical and systemic examination

How to cite this article:

Garde JB, Shah M, Patwa R, Jain P, Khandale S, Kathuriya P. Pleomorphic Adenoma of Palate. Int J Dent Med Res 2015;1(6):65-67.

was normal.

CT scan reveals soft tissue density lesion of left hard palate with scalloping of adjacent alveolar margins (Figure 2). Incisional biopsy showed characteristic pleomorphic adenoma.

After pre-anaesthetic fitness, patient was taken under general anaesthesia, given by nasotracheal intubation. A palatal full thickness mucoperiosteal flap was raised from 28 to 15. The entire tumour was removed en bloc with fine dissection and with a wide margin, separating it from the palatal mucosa and alveolar bone (Figure 3). Greater palatine nerve preserved. Haemostasis achieved. Sutures were placed and palatal plate was given to the patient. The specimen (Figure 4) was sent for histopathological diagnosis, which confirmed the provisional diagnosis (Figure 5).

At 14 days, plate was removed and healing was satisfactory. On 18 month recall, wound healing was satisfactory, with no recurrence (Figure 6).



Figure 3 : Intraoral presentation of swelling



Figure 4 : Entire specimen in toto

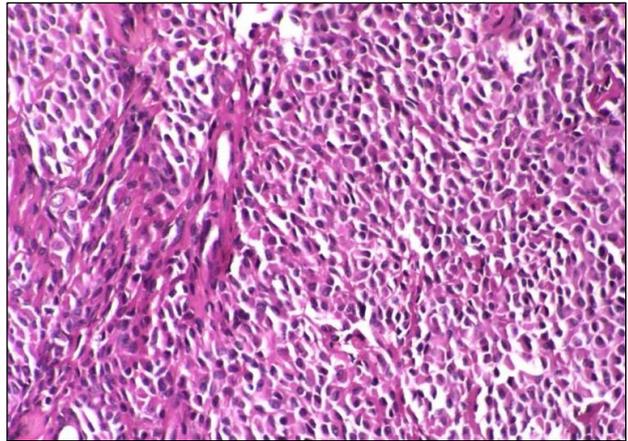


Figure 5 : 10x sheets of plasmacytoid cells



Figure 6 : 18 month follow-up

DISCUSSION

Pleomorphic adenoma is the most common benign neoplasm that occurs in the salivary glands. 84% occurs in the parotid gland, 8% in the submandibular gland and 4-6% in the minor salivary glands. The term 'pleomorphic' describes the embryogenic origin of these tumors i.e., a benign neoplasm consisting of cells exhibiting the ability to differentiate to epithelial and mesenchymal cells.¹

It is commonly seen in the fourth and fifth decade, although it can be seen in any age.

Pleomorphic adenoma of minor salivary glands are usually firm, painless, slow growing tumors presenting as a smooth mass which was seen in our case.⁷ A rapid growth would lead to an indication towards metastatic change. The palatal mucosa is firmly adherent to the underlying bone, due to which the lesion appears fixed. It seldom achieves a large size, because as it increases in size, it leads to difficulty in mastication, speech and swallowing, for which the patient comes for treatment. They lack a well-defined fibrous capsule, which is a cause for its high recurrence rate. They are also known to cause erosion of adjacent bone, which can be best confirmed with a CT scan.⁸

The diagnosis is done on the basis of history, clinical examination, cytology and histo-pathology.⁸

Radiographically, a CT scan would be ideal to determine extent of lesion, bony erosion, and invasion, whereas MRI would help delineate soft tissue spread.⁹

Histologically, it reveals epithelial and myoepithelial elements arranged in different patterns in mucopolysaccharide stroma. False capsule may be seen which forms as a result of fibrosis of surrounding salivary parenchyma that got compressed due to tumour.^{8,9}

The treatment protocol for such cases is mostly surgical excision of tumour wherein they are excised up to periosteum of bone with a cuff of normal surrounding tissue.¹⁰ Excision of bone is included rarely required as it serves as an anatomical barrier.¹⁰ However, one may see pressure resorption or erosion.¹¹ If soft palate involvement also present, then excision of the fascia of the muscles over the soft palate would also be required.¹⁰ If complete resection not achieved, then adjuvant radiotherapy is advisable to reduce rates of recurrence.^{12,13} However, as complete excision was achieved in our case, thus no radiotherapy was required.

Recurrence rates of these tumours are not seen, if adequate surgical excision has been performed.⁸ Recurrences can occur with enucleation procedures, where the chances of leaving pseudo pod like microscopic extensions is a possibility due to the absence of a true capsule in these cases. A recurrence rate of 6% has been noted by Spiro in his evaluation of 1342 patients with benign minor salivary gland neoplasms.¹⁴

Any ulceration of the overlying mucosa, which is not caused by biopsy or trauma from any other reason, one should suspect malignancy. A 2-9 % of malignant transformation of these cases has been reported.

So, a good careful histopathological evaluation is essential for such cases. The risk of malignancy increases with the duration of the tumor and patient's mean age. To detect local recurrence and malignization at the earliest, regular follow-up of the patients is essential.¹⁵

CONCLUSION

Complete excision of the lesion is a definitive treatment protocol for these cases. However, one should try and prevent breach in the continuity of lesion and remove the entire lesion in toto, to minimize recurrence. In the case reports in literature, no long term follow up has been shown, depicting the long term morbidity of this method. So, a good follow up is also essential.

REFERENCES

1. Rajendran R. Tumours of Salivary Glands. In : Rajendran R, Sivapathasundharam, editors, Shafer's Textbook Of Oral Pathology, Elsevier 5th Edition ; 309 – 317.
2. McIlveen LP, Sharp KH, Schuman NJ. Pleomorphic adenoma of a minor salivary gland : Report of a case. Quintessence Int 1987; 18:211-213.
3. Smolka W, Eggensperger N, Stauffer – Brauch EJ, von Bredow F, Iizuka T. Pleomorphic adenoma in an atypical location near the temporomandibular joint: A case report. Quintessence Int 2007 ; 38 : 417 -21.

4. de Paula Vernetta C, Garcia Callejo FJ, Ramirez Sabio JB, Orts Alborch MH, Morant Ventura A, Marco Algarra J. Giant pleomorphic adenoma of minor salivary gland. Transoral resection. Rev Esp Cir Oral y Maxilofac 2008;30:20104.
5. Thiagarajan B. Pleomorphic Adenoma hard palate a case report and literature review. Ent Scholar. 18th March 2013
6. Clauser L, Mandrioli S, Dallera V, Sarti E, Galie` M, Cavazzini L. Pleomorphic adenoma of the palate. J Craniofac Surg 2004; 15(6):1026–1029.
7. Yin WY, Kratochvil FJ, Stewart JC. Intraoral minor salivary gland neoplasm: Review of 213 cases. J Oral Maxillofac Surg 1989; 18:158-62.
8. Debnath, S. C., Saikia, A. K., & Debnath, A. (2010). Pleomorphic Adenoma of the Palate. Journal of Maxillofacial & Oral Surgery, 9(4), 420–423.
9. Daniels JS, Ali I, Al Bakri IM, Sumangala B. Sumangala: Pleomorphic adenoma of the palate in children and adolescents: A report of 2 cases and review of the literature: J Oral Maxillofac Surg 2007; 65:541-9.
10. Toida M, Shimokawa K, Makita H, Kato K, Kobayashi A, Kusunoki Y, *et al.* Intraoral minor salivary gland tumors: A clinicopathological study of 82 cases. Int J Oral Maxillofac Surg 2005;34:528-32.
11. Tanrikulu R, Yaman F, Atilgan S, Gunes N, Gorgun B. Interesting case: An unusual location for a large pleomorphic adenoma arising in the maxilla. Journal of International Dental and Medical Research 2010; 3: 34-37.
12. Ganly I, Patel SG, Coleman M, Ghossein R, Carlson D, Shah JP. Malignant minor salivary gland tumors of the larynx. Arch Otolaryngol Head Neck Surg 2006, 132(7):767–770
13. Terhaard CH, Lubsen H, Rasch CR, Levendag PC, Kaanders HH, Tjho-Heslinga RE, van Den Ende PL, Burlage F, Dutch Head and Neck Oncology Cooperative Group. The role of radiotherapy in the treatment of malignant salivary gland tumors. Int J Radiat Oncol Biol Phys 2005, 61(1):103–111
14. Spiro RH. Salivary neoplasms: overview of a 35 year experience with 2807 patients. Head Neck Surg 1986; 8(3):177–184
15. Feinmerrser R, Cols Y. Pleomorphic adenoma of the hard palate an invasive tumor. J Laryngol Otol 1983; 97:1169-71.

Source of Support: Nil
Conflict of Interest: Nil