

PLEOMORPHIC ADENOMA OF PALATE: A DIAGNOSTIC DILEMA?

Aruna Das¹, Deepak Narang², Prabhakar Kumar³, Santosh kumar⁴, Amog Tanwar⁵

1. Professor, Head & Vice Principal, Dept Of Oral Medicine & Radiology, Dental College Azamgarh, Azamgarh,U.P
2. Senior Lecturer, Dept Of Oral Medicine & Radiology, Dental College Azamgarh, Azamgarh,U.P
3. Senior Lecturer, Dept Of Oral Medicine & Radiology, Dental College Azamgarh, Azamgarh,U.P
4. Senior Lecturer- Dept Of Oral Medicine & Radiology, Dental College Azamgarh, Azamgarh,U.P
5. Reader,Department of Pediatric Dentistry,Maharana Pratap Dental College,Kanpur

ABSTRACT

The pleomorphic adenoma (PA) or mixed tumor is the most common neoplasm of the salivary gland, accounting for about 65% of all salivary gland neoplasms. Usually, PA arises in parotid glands where it represents 65% of parotid gland neoplasms. PA is more common in females, with a male-to-female ratio ranging from 1:3 to 1:4. The clinical presentation of this neoplasm is characterized by a painless, slow growing, firm mass. In the early phase of development PA is usually movable, but following growth the tumor becomes more nodular and more stable. PA is one of the few benign neoplasms that can undergo malignant transformation, with an incidence of 4.5%. The likelihood of a malignant change in PA increases with the duration of the tumor and with the age of the patient. This tumor usually has a capsule-like structure surrounding the mass. Tumors penetrating the capsule have a poor prognosis with 5-year survival rates in the range of 25 to 65%. At present, the best form of therapy is a wide surgical excision with a contiguous lymph node dissection and an adjuvant radiation therapy. Presenting a case report of a 35-year-old female diagnosed with pleomorphic adenoma arising from minor salivary gland.

Keywords: salivary gland, tumor, oncogenes, neoplasm.

INTRODUCTION

Pleomorphic adenoma (PA) is the most common tumour of the salivary gland. Although this tumour is originally benign, the rate of recurrence is relatively high (2.5– 32.5%).¹⁻⁵. The frequency of recurrence is lower in most modern surgical series, although once recurrence occurs PA may have a high rate of re-

recurrence.⁶ Recurrent PAs are often multinodular and frequently lack surrounding capsule, so that patients with recurrent PA of the salivary gland are difficult to manage.^{5,7,8} The prediction and prevention of recurrence are important for the treatment of PA.

CASE REPORT:

A 35-year-old female patient reported to the outpatient department of Oral Medicine and Radiology, with a chief complaint of swelling in the palate for the past 4 years.

Initially, the swelling was smaller in size and was not associated with any type of pain or discomfort. She had consulted many physicians in the past for the same reason and was advised to go for biopsy and treatment that the patient declined. For the past 1-year, the swelling was growing and gained 3 cm × 3 cm dimension not crossing the midline of palate. Her medical and family history was noncontributory

A well-defined solitary swelling on the right side of the palate extending posteriorly to 1/3rd of the hard palate, laterally from rightmaxillary canine to right maxillary third molar region and The dimension of the swelling was around 3 cm × 3 cm anteroposteriorly, and oval in shape. Overlying mucosa was smooth. There was no discharge from the swelling, its border was distinct, and color was normal. Mucosa adjacent to the swelling appeared normal Swelling was firm in consistency, noncompressible, onfluctuent, nonmobile and nontender. On Aspiration, it did not yield any content. Vitality test confirmed that all the teeth were vital. Hence, based on the history given by the patient and the clinical examination carried

out, a provisional diagnosis of pleomorphic adenoma of the palate was made. The clinical differential diagnosis considered for the swelling were periapical cyst, periodontal cyst, mucoepidermoid carcinoma and adenoid cystic carcinoma.

PATHOLOGICAL INVESTIGATION: Incisional biopsy was done, and the microscopic section showed proliferation of epithelial and myoepithelial cells arranged in duct-like structures with the presence of mucin, myxomatous hyalinized areas. Large percentage of tumor cells contains myoepithelial cells arranged in the angular pattern. Surface epithelium was stratified squamous with papillary areas. . With all these features, a final diagnosis of pleomorphic adenoma was made.

RADIOLOGICAL INVESTIGATION :

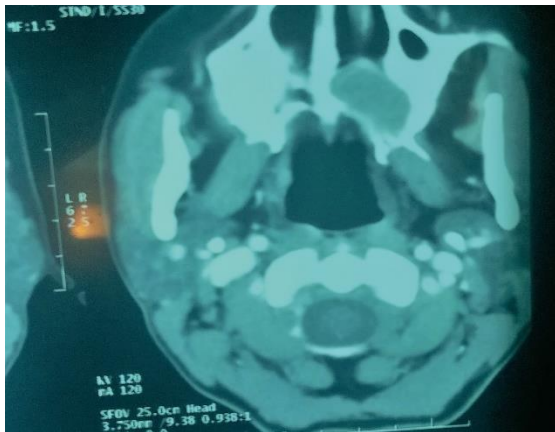
1.OPG



Panaromic radiograph shows ill-defined circular mixed radio-opaque radiolucent lesion on the right side of maxilla wrt 11 to 17.

2. CT SCAN

Axial section of CT scan shows Distinct homogenous radiolucent lesion is found on right side of palate, extending posteriorly to 1/3rd of the hard palate, laterally from right maxillary canine to right maxillary third molar region.



DISCUSSION

PA of minor salivary gland is most common in palate (10%), followed by lip (4%).]. The unusual sites are sinuses, larynxepiglottis, and trachea. PAs have also been reported in tongue, soft palate,uvula and even external auditory canal.[7] Though the case we presented is not a rare one, these kinds of tumor are most often malignant and are often misdiagnosed. Clinically the patient presented a solitary, painless, slow growing, well-circumscribed palatal lump which is typical presentation of such tumor. The mechanical symptoms most commonly manifested by tumors of this

REFERENCES:

location are dyspnea, dysphagia, acute airway obstruction, and obstructive sleep apnea. Histo-pathologically pleomorphic adenoma shows complex morphology, contains epithelial and myoepithelial elements arranged in various patterns and embedded in mucopolysaccharides stroma. Capsule formation is a result of fibrosis of the surrounding salivary parenchyma composed by the tumor that is referred to a false capsule.

The treatment for pleomorphic adenoma in palate is wide local excision with the removal of periosteum or bone if it is involved.] Simple enucleation of this tumor can lead to high local recurrence rate and should be avoided. Pleomorphic adenoma is known to produce a recurrence either due to rupture of capsule or tumor spillage, so meticulous dissection is important. Up to 44% of recurrence rate has been reported.

CONCLUSION

PA, though a common entity, is still a challenging tumor for pathologist, radiologist, and the surgeon. Its diverse histological microscopic picture is a challenge .to the. Clinician and. one must be cautious of its recurrence. and malignant potential as it can interface with function of oral cavity.

1. Buchman C, Stringer SP, Mendenhall WM, et al. Pleomorphic adenoma: effect of tumor spill and inadequate resection on tumor recurrence. *Laryngoscope* 1994;104:1231-4.
2. Henriksson G, Westrin KM, Carlsoo B, et al. Recurrent primary pleomorphic adenomas of salivary gland origin: intrasurgical rupture, histopathologic features, and pseudopodia. *Cancer* 1998;82:617-20.
3. McGurk M, Renehan A, Gleave EN, et al. Clinical significance of the tumour capsule in the treatment of parotid pleomorphic adenomas. *Br J Surg* 1996;83:1747-9.
4. Leverstein H, Tiwari RM, Snow GB, et al. The surgical management of recurrent or residual pleomorphic adenomas of the parotid gland. Analysis and results in 40 patients. *Eur Arch Otorhinolaryngol* 1997;254:313-17.
5. Becelli R, Perugini M, Mastellone P, et al. Surgical treatment of recurrences of pleomorphic adenoma of the parotid gland. *J Exp Clin Cancer Res* 2001;20:487-9.
6. Maran AG, Mackenzie IJ, Stanley RE. Recurrent pleomorphic adenomas of the parotid gland. *Arch Otolaryngol* 1984;110:1671
7. Daryani D, Gopakumar R, Ajila V. Pleomorphic adenoma of soft palate: Myoepithelial cell predominant. *Indian J Dent Res* 2011;22:853-6.
8. Ellis GL, Auclair PL. Tumours of the Salivary Glands, Atlas of Tumour Pathology. 3rd series, Fascicle 17. Washington: Armed Forces Institute of Pathology; 1996
9. Ghosh SK, Saha J, Chandra S, Datta S. Pleomorphic adenoma of the base of the tongue: A case report. *Indian J Otolaryngol Head Neck Surg* 2011;63:113-4.
10. Su A, Apple SK, Moatamed NA. Pleomorphic adenoma of the vulva, clinical reminder of a rare occurrence. *Rare Tumours* 2012;4:e16.
11. Koyuncu M, Karagoz F, Kiliacarlan H. Pleomorphic adenoma of the external auditory canal. *Eur Arch Otorhinolaryngol* 2005;262:969-71.
12. Clauser L, Mandrioli S, Dallera V, Sarti E, Galiè M, Cavazzini L. Pleomorphic adenoma of the palate. *J Craniofac Surg* 2004;15:1026-9. Ogata H, Ebihara S, Mukai K. Salivary gland neoplasms in children. *Jpn J Clin Oncol* 1994;24:88-93.
13. Mubeen K, Vijayalakshmi KR, Patil AR, Giraddi GB, Singh C. Beningn pleomorphic adenoma of minor salivary gland of palate. *J Dent Oral Hyg* 2011;3:82-8.

TABLE:

HEAMOGLOBIN	11.5-14gm/dl	13.9gm/dl
TOTAL LEUKOCYTE COUNT	4000-10,000 cummm	14,400 cummm
DLC		
POLYMORMPHS		50-60%
LYMPHOCYTES		20-40%
MONOCYTES		1-6%
EOSINOPHIL		2-8%
BASOPHIL		0-2%
ESR (WINTROBES)	0-2mm in 1 hr	32mm in 1 hr