VOLUME - 13, ISSUE - 02, FEBRUARY - 2024 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

ENT

PLEOMORPHIC ADENOMA OF HARD PALATE: CASE SERIES OF EIGHT PATIENTS AT TERTIARY CARE CENTRE

Ramraj Yadav	SR, Dept of ENT, BHU, Varanasi 221005, India
Deepak Kumar Gupta	SR, Dept of ENT, BHU, Varanasi 221005, India
Sanjay Kumar Saroj*	SR, dept of ENT, BHU, Varanasi 221005, India. *Corresponding Author
Ashvanee Chaudhary	AP, AIIMS Patna, Bihar 801507, India
Birendra Kumar	JR, dept of pathology, BHU, Varanasi 221005, India
Vishwambhar Singh	Assoc prof Dept of ENT, BHU, Varanasi
Rajesh Kumar	Prof Department of ENT, BHU, Varanasi, India

ABSTRACT **Introduction:** Pleomorphic adenomas are benign tumors of the salivary gland. In the palate they present as slow growing submucosal mass on hard palate. Most common salivary gland tumor, is also known as benign mixed tumors, because of its dual origin from epithelial and myoepithelial elements. **Methods:** The prospective study was conducted in ENT department, tertiary care centre, over a period of one year. This study aims to focus on age, size, clinical presentations, radiological features and management of tumors. After the clinical suspicion FNAC and Computed tomography done in all patients before any surgical intervention. **Results:** Most common involved age group is 20-40 years, and common symptom is palatal swelling. CT scan shown palatal bone erosion in 2 patients and FNAC report is diagnostic in all cases. Wide local excision done in all cases and no recurrence found in one year of follow up. **Conclusion:** The incidence of pleomorphic adenoma is high among adults and along with clinical suspicion FNAC is diagnostic tool, CT scan done to rule out any bony erosion. Wide local excision is best treatment.

KEYWORDS : Pleomorphic adenoma(PA), Submucosal mass, Chondromyxoid differentiation.

INTRODUCTION

Salivary gland tumours constitute about 3% of head and tumours, pleomorphic adenoma is most common among them and accounts about 40-70% of all salivary gland tumours[1,2]. Most common site of pleomorphic adenoma in oral cavity and oropharynx is palate followed by lip, floor of mouth, tongue, tonsil, pharynx and retro molar area[3].

Majority of the palatal pleomorphic adenoma occurs between 20-40 years of age with slightly female predilection[2,3].

The presenting symptom of the patient is palatal swelling in all the patients and some patients also complain of pain which is on and off, itching and numbness. On examination the swelling is firm or rubbery in consistency in submucosal plane which is unilateral in most of the cases. These tumours arise from intercalated and myoepithelial cells and contains both epithelial as well as mesenchymal tissues[4,5]. Differential diagnosis includes palatal torus, cyst, maxillary sinus tumours, lymphoma and other benign and malignant tumours of minor salivary glands[6].

The diagnosis of palatal pleomorphic adenoma is established by detailed clinical history, physical examination, cytology and radiological scan to look for the underlying bony status.

Modality of treatment is wide local excision of swelling with periosteum or underlying bone, if involved. Simple enucleation of swelling has high recurrence rate hence avoided[7].

METHODS

This study was conducted in a tertiary care centre of eastern Uttar Pradesh, India over a period of one year. After the clinical suspicion, FNAC and CT scan was done to confirm diagnosis and to see the extent of lesion and bony erosion. After the diagnosis was established, all patients underwent wide local excision and repair or reconstruction as appropriate. Patients without any bony erosion underwent wide local excision with periosteum removal, in one patient with partial bony erosion; total involved bone was curetted out and removed followed by reconstruction of the defect. Tissue was sent for histopathological examination. All the patients were followed up for one year and were observed for recurrence.

Case 1:

A 16 year female present to outpatient department with bilateral palatal swelling, which is insidious in onset, gradually progressive from small pea size to present size approx 7*6 cm in last 3 years and painless. On examination swelling is multiloculated, non-tender and smooth in consistency.

After detailed history and examination, Fine needle aspiration cytology and CT scan done. CT scan suggested there is a complete palatal bone erosion and FNAC findings suggestive of pleomorphic adenoma. After routine investigation patient is posted for excision under general anaesthesia, swelling completely removed, involved bone curette out, primary suturing done and tissue sent for histopathological examination. Post op period uneventful and managed with proper antibiotics, NSAIDs and gargle. Sutures removed on POD 10, wound is healthy, HPE comes pleomorphic adenoma. There is no recurrence observed in one year follow up.

Case 2:
A 20 year old female comes to out department with right side palatal swelling, insidious onset, gradually progressive, selling is of about 2*2 cm. There is itching over the swelling which is on and off. On examination it is smooth and non tender. After detail history and examination, FNAC and CT scan done. FNAC finding suggestive of pleomorphic adenoma and CT scan shows underlying bone is not involved. Patient is operated under local anaesthesia, completed excision done, primary suturing done and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD 10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

Case 3:
40 years male visit to out department with left sided palatal swelling from last 5 years, which is insidious in onset and gradually progressive, swelling is about 5*5 cm and associated with pain which is on/off. Swelling is smooth. CT scan shows partial palatal bone erosion and FNAC suggestive of pleomorphic adenoma.

Patient is posted under general anaesthesia. Swelling is completely removed, involved bone is curette out, primary suturing done and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD 10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year

Case 4:
A 35 year old female comes to out department with left side palatal swelling, insidious onset, gradually progressive, selling is of about 6*5 cm and painless. On examination it is smooth and non tender. After detail history and examination, FNAC and CT scan done. FNAC finding suggestive of pleomorphic adenoma and CT scan shows underlying bone is not involved.

Patient is operated under general anaesthesia, completed excision with primary suturing done and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD-10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

Case 5:
A 32 years male visit to out department with right sided palatal swelling from last 1 year, which is insidious in onset and gradually progressive, swelling is about 1*2 cm. Swelling is smooth and non tender. CT scan shows underlying bone is not involved and FNAC suggestive of pleomorphic adenoma. Patient is posted under local anaesthesia. Swelling is completely removed, primary suturing done and tissue sent for Histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD 10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

Case 6:
A 27 year old female comes to out department with left side palatal swelling, insidious onset, gradually progressive, swelling is of about 3*4 cm and painless. On examination it is smooth and non tender. After detail history and examination, FNAC and CT scan done.

FNAC finding suggestive of pleomorphic adenoma and CT scan shows underlying bone is not involved. Patient is operated under general anaesthesia, completed excision with primary suturing and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD-10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

Case 7:
A 33 year old male comes to out department with right side palatal swelling, insidious onset, gradually progressive, swelling is of about 4*4 cm and painless. On examination it is smooth and non tender. After detail history and examination, FNAC and CT scan done. FNAC finding suggestive of pleomorphic adenoma and CT scan shows underlying bone is not involved. Patient is operated under general anaesthesia, completed excision with primary suturing done and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD-10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

Case 8:
A 29 year old female comes to out department with right side palatal swelling, insidious onset, gradually progressive, swelling is of about 3*3 cm and painless. On examination it is smooth and non tender. After detail history and examination, FNAC and CT scan done. FNAC finding suggestive of pleomorphic adenoma and CT scan shows underlying bone is not involved. Patient is operated under general anaesthesia, completed excision with primary suturing and tissue sent for histopathological examination. Post op event uneventful and managed with antibiotic, NSAIDs and gargle. Sutures removed on POD-10, wound healthy and HPE comes pleomorphic adenoma. No recurrence observed in one year.

RESULTS

In the duration of one year, eight patients were diagnosed as palatal pleomorphic adenoma and operated in our department, 3(37.5%) were male and 5(62.5%) were females. Mean age of presentation was 29 year, ranging in the age group of 20- 40 years and showed female predilection.

In 3 (37.5%) patients swelling was on right side and in 4(50%) patients on the left side whereas 1(12.5%) patient had swelling extending to both sides. Most common presenting feature was palatal swelling, one patient complains about pain and one complains itching. Mucosa over the swelling was normal in all the cases, in majority of the cases, swelling was smooth and unilateral, except one in which it was multilobulated and involved both sides. Swelling ranged from 2-9 cm in greatest dimension, majority of them falling in 3-6 cm group (table 1).

Table 1: Size of the tumour

S. no.	Size	No of patients
1.	<3 cm	2
2.	3-6 cm	5
3.	>6 cm	1

Table 2: Computed tomography(CT) findings of palatal adenoma

S. no.	CT findings	No. of patients
1.	Intact hard palate with no erosion	6
2.	Partial bone erosion	1
3.	Complete bone erosion	1

FIGURES:


Fig: 1


Fig: 2


Fig: 3

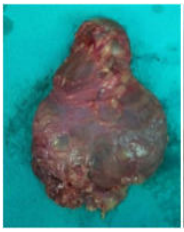
Fig: 4

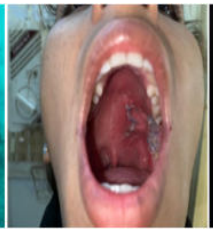
Fig: 5

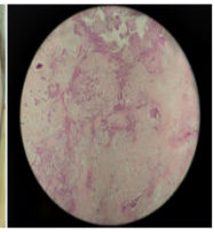
Fig: 6

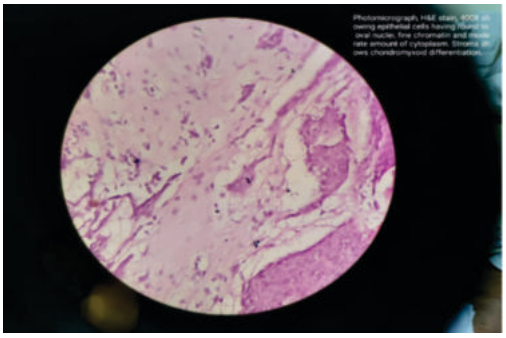

Fig 7

Fig 1: Pre operative picture
Fig 2 & 3: Radiological pictures
Fig 4: Picture of specimen
Fig 5: Post operative picture
Fig 6: Histopathological picture at 40x magnification
Fig 7: Histopathological picture at 400x magnification

After the diagnosis was established, all patients underwent wide local excision and repair or reconstruction as appropriate. Patients without any bony erosion underwent wide local excision with periosteum removal, in one patient with partial bony erosion; total involved bone was curetted out and removed followed by reconstruction of the defect.

Tissue was sent for histopathological examination showing proliferation of epithelial and stromal component (H&E stain, 40X) and showing epithelial cells having round to oval nuclei, fine chromatin and moderate amount of cytoplasm, with stroma showing chondromyxoid differentiation (H & E stain, 400X). Comparing the FNAC result with histopathological results it came out to be 100% accurate. All the patients were followed up for one year and no recurrence was seen.

DISCUSSION

The data from the our study shows that palatal pleomorphic adenoma had female predilection, most common involved age group is 20-40 years while one patient was 16 years old. Pleomorphic adenoma in children and adolescent are rare. Byars et al.[8] first of all reported two cases of PA and Yamamoto et al.[9] reported 10 cases of juvenile PA.

The most common presenting symptom of the patients is palatal swelling and few patients have pain and itching. Long period between appearance of symptom and diagnosis emphasises slow growing nature of the tumour. Size of the swelling ranged from 2-9 cm in greatest dimension, majority of them falling in 3-6 cm size group.

Differential diagnosis includes palatal torus, cyst, maxillary sinus tumours, lymphoma, minor salivary gland benign and malignant tumours. These tumours arise from intercalated and myoepithelial cells and contain both epithelial as well as mesenchymal tissues. The diagnosis of palatal pleomorphic adenoma is established by detailed clinical history, physical examination, cytology and radiological scan as required to look for the underlying bony status but histopathological report is gold standard for the diagnosis.

CONCLUSION

Pleomorphic adenoma is slow growing tumour and in palate it is a rare entity and usually found in adults with female predilection. CT scan is necessary to see underlying bony status where as Definitive diagnosis is based on histopathological report. Treatment is wide local excision with removal of periosteum, and removal/curettage of the underlying bone depending on extent of involvement of the bone. Recurrence is uncommon but it can be seen if swelling is incompletely removed.

REFERENCES

1. Luna MA, Batsakis JG, El-Naggar AK (1991) Salivary gland tumors in children. Ann OtolRhinolLaryngol 100:869–871
2. Jorge J, Pires FR, Alves FA, Perez DEC, Kowalski LP, Lopes MA (2002) Juvenile intraoral pleomorphic adenoma: report of five cases and review of the literature. Int J Oral Maxillofac Surg 31:273–275
3. Sanjay Byakodi, ShivayogiCharanthimath, Santosh Hiremath 4, Kashalikar JJ (2011) Pleomorphic adenoma of palate: a case report. Int J Dent Case Reports 1:36–40
4. Batsakis JG (1981) Neoplasms of the minor and 'lesser' major salivary glands. In: Tumors of the head and neck. The Williams and Wilkins Company, Baltimore, p 38–47
5. Suen JY, Synderman NL (1993) Benign neoplasms of the salivary glands. In: Cummings CW, Fredrickson JM, Harker LA, Krause CJ, Schuller DE (eds) Otolaryngology—head and neck surgery. Mosby Yearbook, St. Louis, pp 1029–1042
6. Wong T, (2020), common cause of swelling in oral cavity, The Royal Australian College of General Practitioners 2020
7. Mubeen K, Vijayalakshmi KR, Patil AR, Giraddi GB, Singh C (2011) Benign pleomorphic adenoma of minor salivary gland of palate. J Dent Oral Hyg 3:82–88
8. Byars LT, Ackerman LV, Peacock E (1957) Tumors of salivary gland origin in children: a clinical pathologic appraisal of 24 cases. Ann Surg 146:40–51
9. Yamamoto H, Fukumoto M, Yamaguchi F, Sakata K, Oikawa T (1986) Pleomorphic adenoma of the buccal gland in a child. Int J Oral Maxillofac Surg 15:474–477