

CASE REPORT

Pleomorphic adenoma of soft palate, a rare lesion

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ABSTRACT

Pleomorphic adenomas are benign tumors of the salivary glands and are usually seen in major salivary glands, whereas are rare in minor salivary glands. Tumors of minor salivary glands are usually malignant. Pleomorphic adenoma is the most common tumor of the parotid gland- the largest of the salivary glands. The incidence of these tumors decreases as the size of the salivary gland decreases, making them the rare lesion of the minor salivary glands specially those present in the soft palate and tongue. They present as a soft swelling on physical examination and might not contain any distinguishing feature on history or examination. We describe a case of benign pleomorphic adenoma of soft palate in a 20-year-old female with computed tomography and histopathological findings. This patient presented in ENT outpatient department with history of gradually increasing mass lesion in the palatal region over a period of few months.

Key words: *Pleomorphic adenoma, Soft palate*

A 20-year-old unmarried female, resident of rural area of northern Uttar Pradesh presented in the outpatient department of otorhinolaryngology with chief complaint of slow growing swelling over palate since last 4 months. The lady also complained of pain over swelling while swallowing along with difficulty in deglutition because of swelling. There was no history of headache, vertigo, ear discharge, trauma or any other associated symptoms. There was no history of fever, weight loss, bleeding, pus discharge or any other type of discharge from the swelling. The patient also denies history of any other similar swelling elsewhere in the body. The personal history of the patient did not reveal any history of chewing tobacco, smoking, betel nut chewing or any other addiction. The patient was pure vegetarian. On past history there was no history of similar illness in past neither there was any past history of significant medical or surgical illness. There was no family history of similar complaints. The patient did not take any treatment for the above complaints and presented for the first time in our hospital for the similar complaints.

General examination reveals normal and stable vital parameters. There was no icterus or pallor. The examination of remaining body did not reveal any other swelling. The systemic examination of other systems was within normal limits. On local examination there was a globular mass on left side of palate with normal overlying mucosa was seen. The lesion appeared to arise from mid part of palate, extending upto the posterior border of hard palate. It was non-tender, firm, and non-compressible and had well defined margins. The surface of the mass lesion was smooth. Posteriorly it was limited by the posterior margin of soft palate and anteriorly merging with the soft palate. Superiorly it was extending into nasopharyngeal region. The transillumination test was negative. Rest of otorhinolaryngological examination did not reveal any other significant abnormality. On the basis of history and clinical examination a diagnosis of solid non infectious mass of soft palate likely of benign etiology was made. The possibility of infective etiology (palatal abscess) was less likely as there no fever neither there was any tenderness or erythema.

She was then advised a contrast enhanced computed tomography scan of paranasal sinuses. CT scan was performed on a dual source 128 slice spiral CT with coronal and sagittal reformations. The CT scan revealed a well-defined homogeneously enhancing hypodense soft tissue lesion of size 28 mm X 22 mm X 22 mm arising from left side of soft palate and abutting the hard palate anteriorly, uvula posteriorly, tongue inferiorly and nasopharyngeal wall superiorly. Laterally it was seen to be abutting the right lateral nasopharyngeal wall (Fig 1). There was no infiltration of the surrounding structures with well defined surrounding planes. There was no non enhancing area within to suggest central necrosis of secondary infection. The radiological features were suggestive of a benign etiology neoplastic mass. The possibility of other clinical diagnosis of palatal abscess was completely ruled out. The patient was then advised surgical excision of the lesion.

The patient underwent surgery under general anesthesia & a cream colored white nodular soft tissue mass, which was firm in consistency, was removed. Histopathological examination revealed epithelial and mesenchymal cells and along with other features was suggestive of pleomorphic adenoma.

DISCUSSION

Pleomorphic adenoma is the most common tumor of major salivary glands, although approximately 80% of these are found in parotid gland. About 4-5% of pleomorphic adenomas are seen in minor salivary glands, amongst which palate is one of the site. ⁽¹⁾ Other sites include submandibular gland (8%), lips, buccal mucosa, gingiva and tongue. It is composed of epithelial and myoepithelial cells arranged with various morphological patterns, demarcated from surrounding tissues by a fibrous capsule. ⁽²⁾ It also ranks first as the most common tumor of the intraoral salivary glands of which palate is the most common intraoral site, followed by upper lip and buccal mucosa. Muco-epidermoid carcinoma is the most common malignant salivary gland tumor, while pleomorphic adenoma is the

most common benign counterpart. Pleomorphic adenoma of the palate is rare. ⁽²⁾ Patients with pleomorphic adenomas of the minor salivary glands present mostly in fourth to sixth decades, with a slight predominance in females. ⁽³⁾ They usually present as a unilateral, painless, slow-growing mass in the parotid gland. However, when they originate in the hard and soft palate they present typically as a firm or rubbery submucosal mass without ulceration or surrounding inflammation.

The differential diagnoses for this case include palatal abscess, odontogenic and non-odontogenic cysts, and other soft tissue tumors. Abscess can be ruled out because of loss of signs and symptoms of inflammation, whereas cysts are not firm in consistency. FNA biopsy should be performed as an adjunct to diagnosis prior to definitive surgical treatment. Computed tomography or magnetic resonance imaging should be considered when assessing for presence of bony erosion or soft tissue and nerve involvement. ⁽⁴⁾

The histological pictures of pleomorphic adenomas vary. Pleomorphic adenomas of the extramajor salivary glands are similar to those in the major salivary glands and are composed of a mixture of epithelial and stromal elements. Three main histologic subgroups have been identified: myxoid (80% stroma), cellular (myoepithelial predominant), and mixed (classic) type. ⁽⁵⁾

About 6% of all pleomorphic adenomas harbor malignancy, most often in the form of Ca ex pleomorphic adenoma. ⁽⁶⁾ The two clinical presentations of Ca ex PA are (a) recent rapid growth in long standing tumor and (b) multiple resections of pleomorphic adenoma with eventual malignant transformation. ⁽⁷⁾ A recurrence rate of 2 to 44% in the pleomorphic adenoma (mainly of the parotid gland) has been reported in the literature. ⁽²⁾ Invasive Ca ex Pleomorphic adenoma has 5-year survival of approximately 30%. ⁽⁸⁾ The recommended treatment is surgical excision with wide margins and subsequent radiation therapy if required.

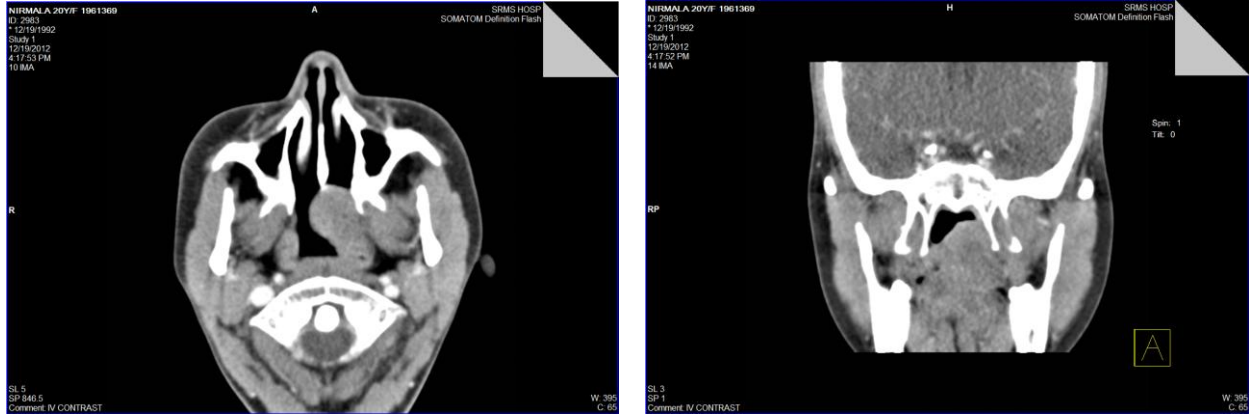


Figure 1: CECT axial and coronal planes demonstrating a well defined enhancing mass lesion arising from soft palate

REFERENCES

1. Sreenivas SD. Pleomorphic Adenoma of the Palate: A Case Report. *Journal of Indian Dental Association* 2011; 5:557-558.
2. Mubeen K, Vijayalakshmi KR, Pati AR, Girish BG, Chandravir S. Benign pleomorphic adenoma of minor salivary gland of palate. *Journal of Dentistry and Oral Hygiene* 2011; 3(6):82-88.
3. Vellios F, Shafer WG. Tumors of minor salivary glands. *Surg Gynecol. Obstet* 1959; 108: 450-456.
4. Frazell EL. Clinical aspects of tumors of the major salivary glands. *Cancer* 1954: 637-642.
5. Ogata H, Ebihara S, Mukai K. Salivary gland neoplasm in children. *Japanese Journal of Clinical Oncology* 1994; 24: 88-93.
6. Gnepp DR. Malignant mixed tumors of the salivary glands: a review. *Pathol Annu.* 1993; 28(Pt 1):279-328.
7. AFIP atlas of tumor pathology: tumors of salivary glands. 4th edition vol 9. Ellis GI, Auclair PL. Carcinoma ex pleomorphic adenoma 2008; 259-269. Washington, DC: ARP press.
8. Oslen KD, Lewis JE. Carcinoma ex pleomorphic adenoma: a clinicopathologic review. *Head Neck* 2001; 23:705-712.

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