

PLEOMORPHIC ADENOMA OF HARD PALATE : A CASE REPORT

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ABSTRACT

Pleomorphic adenoma is a benign mixed tumor, which is composed of myoepithelial and epithelial cells. A fibrous capsule separates these cells from the surrounding tissues. Pleomorphic adenoma is the most common salivary gland tumour accounting for 40-70% of all major and minor salivary gland tumours. It is also the commonest minor salivary gland benign tumours accounting for 70% of all tumours. Hard palate is the commonest site followed by upper lip, buccal mucosa, tongue, floor of mouth, retromolar trigone. Tumors of salivary gland are uncommon and accounts only for 2-3% of all tumors occurring in the head and neck. Pleomorphic adenoma is the most common benign tumor involving major salivary glands. Pleomorphic adenoma is very rarely arising tumor from minor salivary gland. The aim of this article is to present a case of palatal pleomorphic adenoma, which was treated successfully by surgical excision.

KEYWORDS : Pleomorphic adenoma; minor salivary gland; hard palate

INTRODUCTION

Pleomorphic adenoma is the most common tumor of major and minor salivary glands. Generally it occurs in large salivary glands. It accounts for 60% to 70% of all tumors arising from minor salivary glands. Parotid is the most common site for Pleomorphic adenoma. The most common intraoral site for Pleomorphic adenoma is the palate. The other sites which are also affected includes lips, cheek, floor of mouth, and nasal cavity, but in decreasing tendency [1]. Females are commonly affected [2][3]. Clinically it is presented as firm, rubbery, painless submucosal palatal mass. Fine needle aspiration cytology is the sensitive and diagnostic tool to get the histological subtype in this type of tumor [4]. Due to the distribution and arrangement of minor salivary tissues of the palate, these tumors are located laterally and rarely cross the midline [5].

CASE REPORT

A 28-year-old male patient presented to our outpatient department with complaint of swelling over the palate since 9 months. There was no prior history of trauma, surgery, dental extraction or infection. It was a slow growing mass which had increased from a size of pea nut to size of lemon within last 9 months. On clinical examination, a firm, well-circumscribed, smooth, non tender, fixed mass was present over the posterior aspect of the hard palate on right side with size measuring 2 cm × 2 cm (Figure 1). There was no regional lymphadenopathy, and general and systemic examinations were normal. Fine needle aspiration cytology (FNAC) and computed tomography (CT) scan were done. FNAC report was suggestive of pleomorphic adenoma, Computed tomography scan of oral cavity was suggestive of 2.1×1.6×1.6 cm lesion over the right side of the hard palate in the submucosal plane without any bone invasion, most probably being benign neoplastic lesion (Figure:2).



Figure 1:Pre-operative Picture

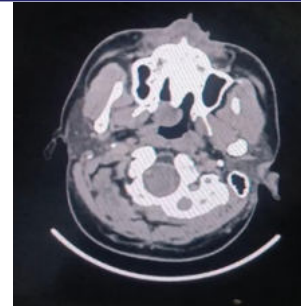


Figure 2: Axial section of noncontrast computed tomogram showing soft tissue mass over right side hard palate

After routine preoperative investigations, the case was planned for wide local excision of palatal swelling under general anesthesia via peroral route. The whole tumor mass was separated out along with periosteum in pieces from the intact underlying bone, with careful dissection (Figure:3). The excised mass was sent for histopathological examination. On the basis of histopathological examination report the diagnosis of pleomorphic adenoma was confirmed. After surgery the patient's postoperative period was uneventful. Postoperative 2 weeks examination showed granulating raw area over palate with epithelialization from surrounding (Figure:4).



Figure 3:Excised specimen in pieces



Figure 4:Post-operative healing

DISCUSSION

The prevalence of tumors in small salivary glands accounts for 20-40%. The smaller the salivary gland that is affected,

more likely it shows malignant behavior. Most commonly affected age group of patients is the ones between the fourth to sixth decades, predominantly the females. Mainly it occurs on the hard and soft palate because majority of the minor salivary glands are located in this area.

These tumors originate from intercalated and myoepithelial cells and contain both epithelial and mesenchymal tissues. Epithelial elements may be arranged in duct-like structure, sheets, clumps, or interlacing strands, and the stroma may be mucoid, myxoid, cartilaginous, or hyaline surrounded by a fibrous pseudocapsule [6].

Pleomorphic adenoma usually presents as a progressive slow growing swelling which is asymptomatic and firm in consistency [7]. When arising from palate, it is rubbery or firm submucosal mass without any kind of ulceration. Pleomorphic adenoma is diagnosed on the basis of history, physical examination, cytology (FNAC), and histopathology. Computed tomography scan and magnetic resonance imaging aid to know the location, size, and extension of tumor to the surrounding superficial and deep structures. Core needle biopsy has higher diagnostic accuracy (greater than 97%) as compared to FNAC.[2][3]

On examination, the differential diagnosis includes palatal abscess, odontogenic or non-odontogenic cyst, soft tissue tumors such as neurofibroma, fibroma, neurilemmoma [8].

The treatment of choice for pleomorphic adenoma should be wide local excision with the removal of periosteum or bone if they are involved. Simple enucleation of this tumor may lead to high recurrence rate and should be avoided [7]. Palatal reconstruction is considered in cases of large palatal defects arising after surgical excision in very aggressive tumors [9].

Reconstruction is required if there is full thickness defect in the bone and is done by obturator or palatal flap based on greater palatine vessels [3]. Soft tissue defect can be allowed to granulate and heal by itself. Reconstruction is needed for the maintenance of speech, swallowing, and anterior facial projection [6].

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 [10].

CONCLUSION

Pleomorphic adenoma of hard palate is relatively rare. Adequate strategy for the treatment of pleomorphic adenomas is wide local excision with negative margins because of absence of encapsulation, merging into normal tissue. Simple enucleation should be avoided as it leads to recurrence, chances of recurrence will reduce with wide surgical excision technique.

SUMMARY

Pleomorphic adenoma of hard palate is relatively rare. Adequate strategy for the treatment of pleomorphic adenomas is wide local excision with negative margins because of absence of encapsulation, merging into normal tissue. Simple enucleation should be avoided as it leads to recurrence, chances of recurrence will reduce with wide surgical excision technique.

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