PLEOMORPHIC ADENOMA OF HARD PALATE

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ABSTRACT

Pleomorphic adenoma is a benign neoplasm of salivary glands, with highest predilection for parotid gland. It may also arise from minor salivary glands present in palate, lip and buccal mucosa. Palatal tumors are found on posterior lateral aspect and present as firm, painless, smooth surfaced dome shape mass and overlying mucosa is intact in most of the

INTRODUCTION

Salivary gland tumors account for less than 3% of head and neck tumors. Among all salivary gland tumors pleomorphic adenoma is most frequently encountered lesion; accounting for approximately 60% of salivary gland neoplasm. Pleomorphic adenoma or mixed tumor is a benign salivary gland neoplasm presenting usually in the parotid or submandibular glands. This tumor usually contains elements of both epithelial and mesenchymal origin.

In this article a case report of pleomorphic adenoma in the posterior lateral border of hard palate has been presented.

CASE REPORT

A 27 year old lady reported to the department of oral surgery with a small palatal swelling noticed by her for the last one year. There was no preceding history of trauma. On intraoral examination there was approximately 2cm firm non-tender swelling seen on the left side of hard palate in the region of 25, 26, 27 **(Fig. 1)**. There was no ulceration of the overlying mucosa. Occlusal X-ray did not show any evidence of bone involvement.

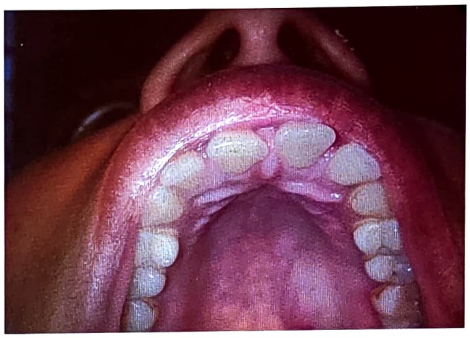

FIG 1: Pre-operative photograph

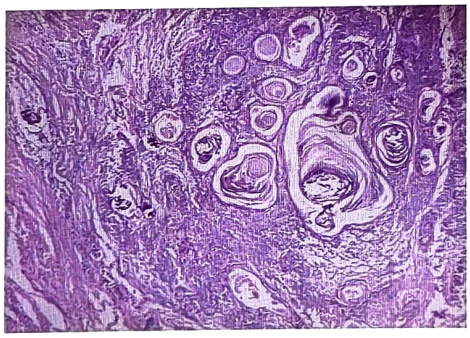

FIG 3: Photomicrograph(40X) showing ductal pattern

Patient was fixed for surgery after routine pre-operative investigations under local anesthesia. Overlying mucosa of the lesion was incised and underlying mass was isolated by blunt dissection and removed in one piece.

There was a little saucer like depression of palatal bone. On gross examination tumor mass was nodular, well circumscribed, firm in consistency, well demarcated and capsulated grayish white in color measuring 1.8x 1.4 cm.

This lesion was neither fixed to overlying palatal mucosa nor to the underlying periosteum which allowed quick separation of the lesion. After separation from adjacent tissues lesion was enucleated along with periosteum to which lesion was attached **(Fig. 2)**. Excess mucosa was trimmed and good primary closure was achieved. Sutures were removed on 7th post-operative day. Post operative healing was uneventful. There was no evidence of recurrence till 6 months of follow up **(Fig 4)**.

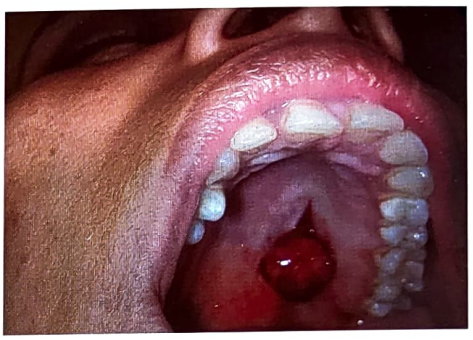

FIG 2: Enucleated lesion in situ

On histopathological examination H&E stained section shows tumor mass surrounded by a thick fibrous capsule proliferating in the form of sheets, clusters, tubular and ductal pattern. Tumor cells are columnar, cuboidal to spindle shape and many cells show plasmacytoid appearance. Most of these ducts are bilayered and are filled witheosinophilic cuboidal material. Keratin pearls formation is also seen **(Fig. 3)**. No atypical features are seen. Few hyalinised areas are also evident.

On the basis of these clinical, radiographic and classical histopathological features diagnosis of pleomorphic adenoma was confirmed.

DISCUSSION

Pleomorphic adenoma are derived from a mixture of ductal and mucoepithelial elements. A remarkable microscopic

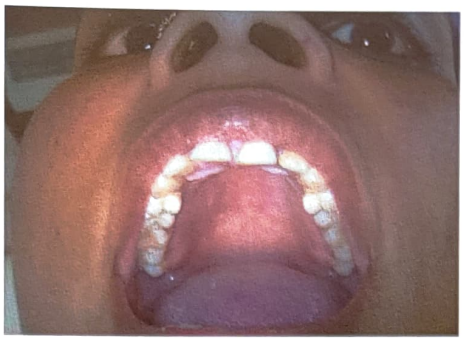

FIG 4: Six months post- operative

diversities can exist from one tumor to another, as well as in different areas of same tumor. Pleomorphic adenoma occurs more frequently in women than in men and in 4th to 6th decade of life. Intraoral pleomorphic adenoma appears as a slowly growing painless mass. Although, it is a benign tumor, it has a high recurrence rate and in small number of cases malignant transformation may be there. Pleomorphic adenoma of oral cavity lack a well defined capsule a feature associated with high recurrence rate. These tumors may also erode and invade the adjacent bone, causing radiolucent mottling on X-rays of maxilla. The diagnosis of pleomorphic adenoma is established on the basis of history, physical examination, cytology and histopathology. CT and MRI can provide information of the location, size, and extension of the tumor to surrounding superficial and deep structures. The pleomorphic nature is determined by an inner layer of mucoepithelial cells arranged in a variety of patterns associated with scant or abundant stroma. Variation may include squamous metaplasia, calcification, and cartilage like tissue, oxyphillic cells and rarely malignant transformation. Pleomorphic adenoma consists of cells with epithelial and mesenchymal differentiation. (Mixed tumor). The highly variable morphology of this neoplasm is result of interplay in between these elements. Today it is widely accepted that both epithelial and mesenchymal (myxoid, hyaline, chondroid, osseous) elements of tumors from same cell alone, which may be myoepithelaial or ductal nerve cell there is no difference in the behavior of neoplasm based on the proportion of various elements. Tumors of hard palate are usually excised down to periosteum including overlying mucosa with 1cm clinical margins at the periphery. Excision or scrapping of palatal bone not required, because periosteum is an effective anatomical barrier and pleomorphic adenoma do not elaborate osteoclast activating factor to invade bone. If the tumor extends to area of soft palate; the excision includes the fascia over the soft tissue musculature. The muscles of soft palate need not to be excised unless frozen section indicates tumor at this margin.

CONCLUSION

Recognition of pleomorphic adenoma and early surgical intervention is necessary for its successful management. Complete surgical excision with safety margin is treatment of choice. A long term follow-up is recommended to rule out possibility of recurrence or malignant transformation. In large lesion CT/MRI is recommended to see the extent of the lesion.

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