



Pleomorphic Adenoma of Palate: A Case Report

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Abstract

Introduction: Pleomorphic Adenoma (PA) is the most common tumor of major and minor salivary glands. The most common intraoral site for PA is the palate.

Case Report: 23 year old young male presented with complains of hard, painless mass over the palate more on left side for the last 10 months. On examination, a firm, well-circumscribed, smooth, non tender, fixed mass was present over the hard palate measuring 3 cm × 3 cm. Outside FNAC report was suggestive of benign tumor most probably pleomorphic adenoma. MRI showed a well defined, lobulated enhancing lesion in the left half of hard palate with no locally infiltrative features. We excised the tumor with overlying mucosa with adequate margins and specimen sent for frozen section. Frozen section reported as pleomorphic adenoma of palate. Then we planned for reconstruction of the palatal defect with greater palatine artery based palatal rotational flap. At one year of follow up, patient was free from disease with healthy flap.

Conclusion: The definitive treatment protocol for pleomorphic adenoma of palate is its complete surgical excision with removal of entire specimen to avoid recurrence.

Keywords: Palate; Pleomorphic; Adenoma; Salivary gland

Introduction

Pleomorphic Adenoma (PA) 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 PA. The most common intraoral site for PA is the palate. The other sites which are also affected includes lips, cheek, floor of mouth, and nasal cavity, but in decreasing tendency [1]. It is a slow growing and mixed benign tumor as it has origin from two components which comprises one from epithelial origin and other from mesenchymal origin [2]. Females are most commonly affected as compared to male. It can regrow if not removed completely but it does not have metastatic potential [3]. Though it is a benign tumor, it may grow in size to acquire a huge dimension. 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]. We are reporting a case of 23 year old young male presented with PA of palate and its diagnostic and therapeutic approaches.

Case Presentation

A 23 year old young male patient came to our clinic with the presenting complains of hard, painless mass over the palate more on left side for the last 10 months. There was no prior history of trauma, surgery, dental extraction or infection. It was a slow growing mass which has increased from a size of pea nut to size of lemon within last 10 months. Patient has no comorbidity and his systemic examination was unremarkable. On clinical examination, a firm, well-circumscribed, smooth, non tender, fixed mass was present over the hard palate with size measuring 3 cm × 3 cm. Rest of the oral cavity was normal and there were no palpable neck nodes (Figure 1). Patient was already evaluated with FNAC outside which was advised by the local clinician. Outside FNAC report was suggestive of benign tumor most probably pleomorphic adenoma. We evaluated patient with MRI for local imaging with chest X-ray, biochemical, routine investigations which were required for anesthesia fitness.

MRI showed a well defined, lobulated enhancing lesion in the left half of hard palate with thinning of underlying bone and bulging inferiorly into the oral cavity with measurement 2.9 cm

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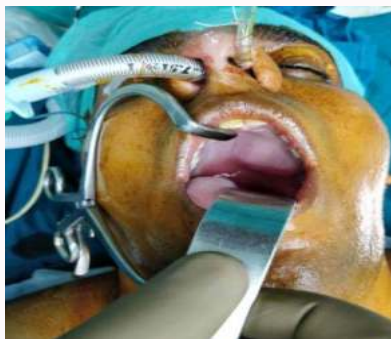


Figure 1: Hard palate fixed mass over left side.



Figure 3: Post-excision defect.



Figure 2: Hyperintense lesion involving left half of palate.



Figure 4: Reconstruction with palatal rotational flap.

× 2.8 cm. There was no locally infiltrative feature (Figure 2). After getting fitness for surgery from anesthesia department, we posted this patient for surgery and planned for wide local excision of the lesion with intraoperative frozen section control and further procedure according to the report.

We excised the tumor with overlying mucosa with adequate margins and specimen sent for frozen section. Complete hemostasis was achieved (Figure 3). Frozen section reported as benign tumor of minor salivary gland possibility of pleomorphic adenoma of palate. Thus our primary resection part was completed and we started with reconstruction of the defect. The palatal defect was closed with greater palatine artery based palatal rotational flap (Figure 4).

In the post operative period, he was started on Ryle's tube feeding for 2 days and then gradually started with sips of water to liquid diet to soft diet. Patient was discharged on 5th postoperative day with uneventful postoperative course. Patient's speech and swallowing was unaffected and we followed the patient for next one year according to our periodic follow up protocol. At one year of follow up, patient was free from disease with healthy flap.

Discussion

Pleomorphic adenoma most commonly presents in 4th to 5th

decades of life but it can be seen in any age. Minor salivary gland pleomorphic adenoma mostly presents as firm, rubbery, painless, slow growing tumor with submucosal presentation [5]. It is the most common benign neoplasm of salivary gland and occurs in parotid gland, submandibular gland, and minor salivary glands. As it has origin from two cell lines i.e. epithelial and mesenchymal cells, it derived its name "pleomorphic" [6]. If there is a rapid increase in the size of the tumor then there may be possibility of some malignant change. Benign tumor rarely achieves large size. If achieves, patient may report early because of difficulty in mastication, swallowing and speech.

The diagnosis of pleomorphic adenoma is established on the basis of history, clinical examination, histopathological examination in the form of FNAC (Fine Needle Aspiration Cytology) and Core Needle Biopsy [7]. On examination, the differential diagnosis includes palatal abscess, odontogenic or non-odontogenic cyst, soft tissue tumors such as neurofibroma, fibroma, neurilemmoma [8]. FNAC and core biopsy both will help to differentiate between benign and malignant lesion and also rest of the diagnosis. Palatal abscess can be diagnosed as it arises from non-vital tooth in the surrounding defect. If the lesion doesn't have cystic consistency then we can exclude odontogenic and nonodontogenic cysts.

Radiologically, CECT and MRI both are helpful in defining the location, size and extension of the tumor into surrounding superficial and deep tissues. CECT is superior to MRI in defining involvement of bony palate and also extension into nasal cavity and maxillary sinus. MRI helps in defining its vertical and inferior extension along with tumor muscle interface to degree of encapsulation [9]. In our case we preferred MRI. It showed a well defined, lobulated enhancing lesion in the left half of hard palate with thinning of underlying bone and bulging inferiorly into the oral cavity with measurement as 2.9 cm × 2.8 cm. There were no locally infiltrative features.

The best approach for managing palatal pleomorphic adenoma is its wide excision with negative margins [10]. If it is excised completely then chances of recurrence are very less. Incomplete excision of the tumor may present with recurrence. If inadequately excised then adjuvant radiation is advisable but still there is lack of literature on this [11]. If there is involvement of soft palate then plan of excision extends to excise the fascia of the soft palate muscles [12]. We did complete excision of the tumor and all margins were clear so no adjuvant treatment was planned.

These tumors doesn't have true capsule instead they have fibrous capsule. So chances of recurrences are there if only enucleation procedure was done. Ulcer over the tumor which was not caused by trauma or biopsy is considered suspicious lesion. Malignant transformation has been mentioned in the literature and it has been described at a rate of 1.9% to 23.3% [13]. Hence proper clinical and histopathological examination is necessary. There are no guidelines for follow up protocol but patient should be followed periodically according to institutional protocol. But no long term follow up is required.

Conclusion

The definitive treatment protocol for pleomorphic adenoma of palate is its complete surgical excision with removal of entire specimen to avoid recurrence and there should be a follow up protocol.

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