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RESEARCH ARTICLE

MINOR SALIVARY GLAND TUMOR OF PALATE - A CASE REPORT AND A NOVEL TREATMENT APPROACH

Dr. G. V. V. Giri, *Dr. K. Santhosh Kumar, Dr. S. Ramkumar, Dr. Deepak A Pandyan and Dr. Ankit Khandawal

Assiocate Professor, Department of Oral and Maxillofacial Surgery, Faculty of Dental Sciences, Sri Ramachandra University, India

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ABSTRACT

Pleomorphic adenoma of palate is the commonest form of minor salivary gland tumor. As it is always a asymptomatic swelling patients usually reports in a late stage for treatment which resulting in high morbidity surgeries. So we report a case of such Pleomorphic adenoma of palate treated by novel approach with minimal morbity.

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INTRODUCTION

Salivary gland tumors are rare and it accounts only 4% of all head and neck tumors (Luna *et al*., 1991). Pleomorphic adenoma is the commonest form of salivary gland tumors and occurs both in major as well as minor salivary glands. In minor salivary gland tumor the commonest sites are cheek, palate and lip (Sreenivas, 2011). Pleomorphic adenoma of palate is usually a unilateral firm swelling, slow growing and asymptomatic so it is often ignored by the patient. Even though it is the commonest form of minor salivary gland tumor of palate, the diagnosis is quite challenging as it always mimics clinically as an infiltrating malignant mucoepidermoid carcinoma. The characteristic features of Pleomorphic adenoma of palate are it usually present with a thin capsule sometimes no capsule also, and it known to cause a bone erosion (de Paula Vernetta *et al*., 2008). The most common treatment for this condition is to do a wide local excision and peripheral curettage. Depending upon the extent of the tumor into nasal cavity, maxillary sinus, oropharynx it may need an extensive radical surgeries at times that eventually results in more morbidity.

Corresponding author: Dr. Deepak Abraham Pandyan,
Assiocate Professor, Department of Oral and Maxillofacial Surgery, Faculty of Dental Sciences, Sri Ramachandra University, India.

We report a case of Pleomorphic adenoma of palate extending into floor of the nasal cavity that was treated with minimal morbidity approach.

Case Report

A 52 year-old female patient came to the Department of Oral & Maxillofacial Surgery, Sri Ramachandra University with the chief complaint of swelling in the palate since twenty five years. Patient gives history of a small swelling initially which is gradually increased to the present size. The lesion always had been asymptomatic, with no associated pain or paraesthesia and a mild difficulty in speech was present. The medical history was non contributory. General examination suggested a well oriented and moderately built individual with no signs of any systemic illness. The clinical examination revealed a single multinodular swelling of 3 x 4cm in size, irregular in shape, with smooth surface erythematous at posterolateral aspect. The swelling extending anteriorly 0.5cm away from the incisive papilla, posteriorly up to hard and soft palate junction, and laterally at the level of alveolar ridge. No evidence of pus discharge, bleeding or any visible pulsation (Figure 1). On palpation swelling is non tender, soft, firm in consistency, not compressible, not reducible.

Figure 1. Preoperative Intraoral picture

Computed Tomogram Scan reveals an irregular shaped, moderately ill-defined lobulated well enhancing exophytic mass arising from the hard palate measuring in to 4.8x3.8x3.5cm and indenting the ventral aspect of tongue. Coronal section CT shows the lesion causes erosion of right side of hard palate and maxillary alveolar process and extends into right nasal cavity (Figure 2). USG guided FNAC suggested lobulated soft tissue lesion with increased vascularity eroding the hard palate on right side with extension into maxillary sinus region and suggested of Salivary gland neoplasm. Incision biopsy specimen shows multiple cystic spaces with mucinous material surrounded by myoeptheial cells, myxiod and mucoid areas and suggested of Pleomorphic Adenoma.

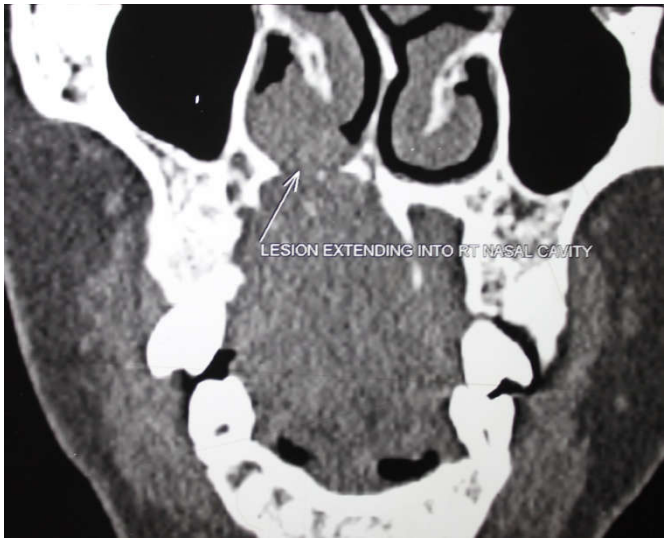

Figure 2. Coronal section CT scan showing the extent of the lesion and infiltration into the nasal cavity

Patient was operated under GA for Excision of lesion in toto by intraoral palatal approach and the lesion extending in the floor of the nasal cavity was approached through a labial vestibular approach in relation to 13 to 15 region with right inferior turbinectomy was done (Figure 3). Peripheral ostectomy was carried out and the reconstruction of defect by buccal pad of fat was done. Exicised lesion was sent for frozen section biopsy and excision biopsy reveals the same Pleomorphic adenoma of palate as a the diagnosis (Figure 4 and 5), Post-operative healing in the reconstruction of the defeat was satisfactory. Patient was under the follow-up with us for the last two year with no recurrence (Figure 6)

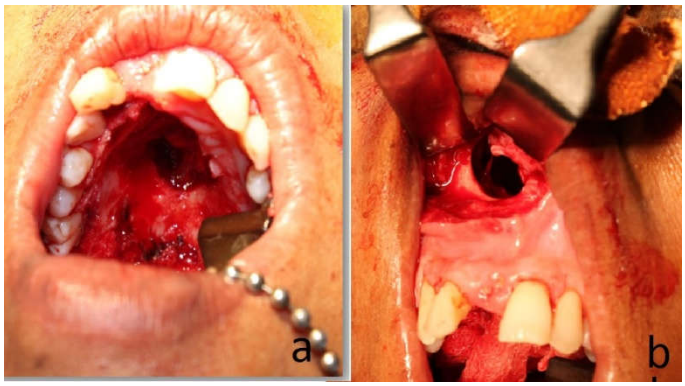

Figure 3a. Intraoperative view showing excision of lesion through palatal approach, Figure 3b. Intraoperative view showing the labial right turbinectomy approach

Figure 4. Excised specimen

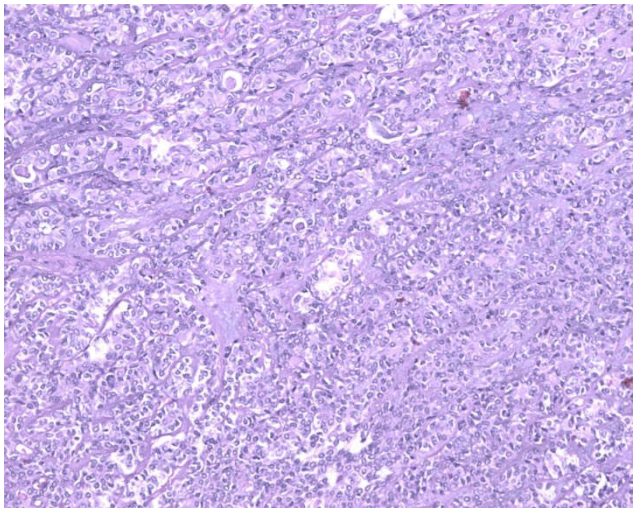

Figure 5. Histolopathology picture 10X view showing both the epithelial and stromal cells

Figure 6. Six months Postoperative picture

DISCUSSION

Pleomorphic adenoma of minor salivary gland is most common in palate (10%), and lip (4%) Whereas rarely it can occur in tongue, soft palate, uvula, even in external auditory canal (Ellis and Auclair,1996; Ghosh *et al*., 2011; Su *et al*., 2012; Koyuncu *et al*., 2005; Yoshihara and Suzuki, 2000; Daryani *et al*., 2011). The typical clinical presentation of pleomorphic adenoma of palate will usually be slow growing asymptomatic, solitary firm swelling. As it is always an asymptomatic swelling patient often reports when the swelling attains a large size and causes difficulty in speech, dysphagia and obstructive sleep apnea (Yoshihara, 2000). Even in our case the patient has a history of swelling for past 25 years, and reported for treatment only when she developed difficulty in speech and dysphagia. Though the case we presented is not a rare one, these kinds of tumor are most often misdiagnosed as a malignant tumor clinically. Computer tomography is a valuable tool to assess erosion of bone and the extension of tumor into adjacent structures such as maxillary sinus, nasal cavity and oropharynx. In our case the tumor erodes the hard plate and the maxillary alveolar bone and invades into the floor of the nasal cavity. FNAC is a fast and easy modality to diagnose a salivary gland tumor but it is difficult differentiate the pleomorphic adenoma from the malignant variants. Incision biopsy is mandatory to confirm the diagnosis. Many authors suggested treatment of pleomorphic adenoma as wide local excision and curettage, but pleomorphic adenoma of palate usually erodes the bone and extends into the nasal cavity and maxillary sinus.

Due to this reason there is high chance of rupture of the capsule of the tumor and tumor spillage is possible resulting in recurrence following surgery. In cases of huge or giant tumors lateral rhinotomy, midface degloving and transpalatal approaches are indicated which results in higher morbidity. In our case a similar large lesion of size 4.8x3.8x3.5cm was successfully excised with an intraoral palatal approach and labial right turbinectomy approach to excise the tumor extending into the floor of the nasal cavity and the palatal defect was reconstructed using the local pedicled buccal pad of fat. We observed this approach can help to excise the larger lesions with minimal morbidity and buccal pad of fat reconstruction was effective in covering the palatal defect.

Conclusion

The above case is a classic example of Pleomorphic adenoma of the minor salivary gland of palate. The extent of the lesion and surgical strategy planning can be aided with Computed Tomography. This combined palatal and labial turbinectomy approach can be helpful to reduce the surgical morbidity of such large Pleomorphic adenoma of palate. Long-term follow-up is necessary to rule out any recurrence.

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