

Minor Salivary Gland Pleomorphic Adenoma: An Inconceivable Diagnosis in a 62 Year Old Female

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ABSTRACT

Pleomorphic adenoma is the most frequently encountered benign tumor of salivary glands originating from the myoepithelial cells and intercalated duct cells with 90% of cases occurring in major salivary gland and 10% in minor salivary glands. This case report describes a rare and unusual lesion in a 62-year-old female, which was diagnosed as pleomorphic adenoma of the minor salivary glands in the upper lip. The tumor was a circumscribed, submucosal, non-tender nodule, measuring about 1 x 1.5 cm in diameter. Complete excision was performed and the histopathological analysis showed both epithelial and mesenchymal components, arranged in the form of tubules, cords, ducts and focal solid areas. There is no evidence of recurrence.

Keywords: Minor salivary glands, Pleomorphic adenoma, Upper lip.

INTRODUCTION

The pleomorphic adenoma is the most common tumor of the salivary gland, which accounts for 60-65% of all salivary gland tumors. [1] The tumor occurs at any age but most commonly between the fourth and sixth decade of life with female predilection. Approximately 85% of all PA are located in the parotid glands, 10% in the minor salivary glands, and 5% in the submandibular glands. [2] Intraorally palate (60%) is the most common site followed by upper lip (20% cases), buccal mucosa, floor

of mouth, tongue, tonsil, pharynx, retromolar area and nasal cavity. [3] The lesion which histologically constitutes admixture of tumors, bone, cartilage, myxoid areas amidst an epithelial component in the form of ducts, sheets and strands, usually presents as an asymptomatic, slow growing, firm mass of size ranging from 1.0 to 1.5cm. We report a case of dome shaped swelling in the upper lip of a middle aged female patient which was clinically mimicking a lipoma, but histopathologically diagnosed as pleomorphic adenoma.

CASE REPORT

A 62-year-old female visited the outpatient department of St. Joseph Dental College with a chief complaint of a small asymptomatic, slow growing swelling in the right side region of upper lip present since one year [Figure 1].

Extra-oral examination revealed a soft, non-tender, oval swelling measuring 1.0 x 1.5 cm in dimension which was freely movable underneath the superficial skin, located in the right side region of upper lip. The skin above the swelling appeared normal. The head, neck, ear, nose, throat and eye examination revealed no abnormality and no cervical lymphadenopathy.

On intra-oral examination an obvious dome shaped submucosal swelling with intact overlying mucosa in the upper

lip was observed [Figure 2]. Based on these clinical features it is diagnosed as oral lipoma. Under local anesthesia, surgical excision of the lesion was performed. The tumor was dissected from the underlying tissue with ease and the lesion appeared yellowish, well-circumscribed soft tissue mass with a lobulated surface 1.5 × 1 × 1 (length × width × thickness) centimeters in size and was submitted for microscopic examination in 10% buffered formalin [Figure 3].

On macroscopic examination, the tumor was solid and lobulated [Figure 3]. The cut-section revealed a well circumscribed, lobulated growth pattern. The specimen was processed and embedded in paraffin using standard procedures. From the paraffin block a 3 μ section was prepared and stained with Hematoxylin and Eosin stain (H and E) for histopathologic examination [Figure 4].



Figure 1

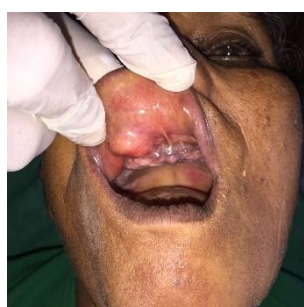


Figure 2

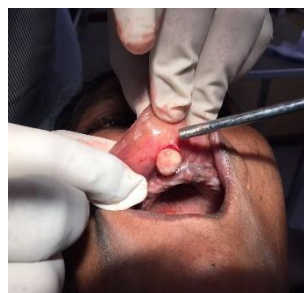


Figure 3

On microscopic examination, H and E stained slides showed well circumscribed tumor mass exhibiting epithelial and mesenchymal components, arranged in the form of tubules, cords, ducts and focal solid areas. Duct like areas were surrounded by bilayered cells with central eosinophilic coagulum. Focal areas show myxomatous and hyalinized areas. Mucous acini and adipose tissue are evident surrounding the capsule. According to these histopathologic features a definitive diagnosis of pleomorphic adenoma was made [Figure 5].



Figure 4

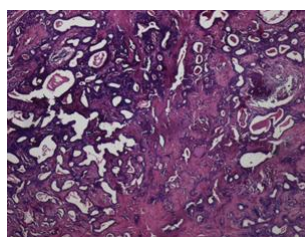


Figure 5

DISCUSSION

Pleomorphic adenoma is the most common tumor of the salivary glands. Kroll and Hick ^[4] reviewed 4042 cases of PAs of the salivary glands. Only 445 originated in the minor salivary glands, and 16.9% were located in the upper lip and 2.9% in the lower lip. Bernier found peak incidence of PA of the lips in third and fourth decades of life. ^{[5][12]} Owens and Calcaterra, Evenson and Cawson respectively in separate studies, found 90% and 75% of the upper lip tumors to be benign. ^{[6][7]} They are usually slow-growing, painless mass, forming smooth, firm and mobile lumps with most of them having a nodular, exophytic component. Those that are soft on palpation usually have large cystic

cavities and an abundance of mucin. However, some cases have been reported presenting rapid growth, chiefly in the palate. Though most common site for pleomorphic adenoma of the minor salivary glands is the palate, it also occurs in the upper lip which is consistent with the present case. PA appears to be well encapsulated in this case. Though PA is benign in nature, it has a high rate of implantability. Any rupture of the capsule or incomplete excision will leave residual tumor cells behind, resulting in recurrence. [8]

Microscopically, encapsulated tumour mass was composed of epithelial and mesenchymal components, confirmatory for pleomorphic adenoma. These tumor cells are arranged in ducts surrounded by bilayered cells with central eosinophilic coagulum and solid areas. Focal areas showed myxomatous and hyalinized areas. The periphery of tumor mass showed mucous acini and adipose tissue. The histopathological differential diagnoses of pleomorphic adenoma are Mucocele, Schwannoma, Neurofibroma, Canalicular adenoma and Chondroid syringoma. Irritational fibromas can also be included in the differential diagnosis. But this lesion mostly occurs on the gingiva, buccal mucosa and tongue. Schwannoma and neurofibroma are quite common in oral cavity presenting as submucosal mass in younger individuals commonly on the tongue. In upper lip, the most common salivary gland tumor is canalicular adenoma, typically presenting in older age females as painless, slow growing, freely movable, firm mass. [9] But this lesion rarely occurs in the oral cavity. PA resembles chondroid syringoma where the latter shows small, tubular lumina in which sweat glands are lined by single layer of flat epithelial cells. [13] In the major salivary gland, PA usually presents as a slow-growing, painless mass. Small tumors typically form smooth, firm, and mobile lumps, but large tumors tend to be bosselated and can attenuate and discolour

the overlying skin. But PAs of minor salivary glands usually present as painless submucosal swellings analogous to this case. [10] Pleomorphic adenoma of the minor salivary glands is not completely capsulated and is characterized microscopically by cellular pleomorphism. But, in the present case, the tumor was completely encapsulated.

Minor salivary gland tumors are treated by a complete surgical excision. Prognosis is excellent. Recurrence may be due to incomplete excision. [11] Excision of the lesion was done and the patient was followed for 6 months with no evidence of recurrence.

CONCLUSION

Pleomorphic adenoma of the upper lip is a significant neoplasm. A complete surgical excision is the treatment of choice. Regular follow up is necessary to check for recurrence and malignant transformation.

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