PLEOMORPHIC ADENOMA – A CASE REPORT

G. Sasipriyadarsini¹, R.R. Mahendra Raj², T. Saravanan³, K. Shakila⁴, J. Sowmiya⁵
Post-graduate¹, Professor & HOD², Professor³&⁴, Post-graduate²
Department of Oral Medicine and Radiology,
Karpaga Vinayaga Institute of Dental Sciences, Chengalpattu, Tamil Nadu, India

Abstract: Pleomorphic adenoma (PA) is the most common benign tumor affecting both major and minor salivary glands. Parotid gland is the most commonly affected major salivary gland. Here, we report a case of pleomorphic adenoma of the parotid gland in a 53-year-old male patient which was surgically excised.

Index Terms - Pleomorphic adenoma, parotid gland, salivary gland tumor, benign tumor

INTRODUCTION:

Pleomorphic adenoma is the most common salivary gland tumor. It is also known as benign mixed tumors (BMT's), because originates from both epithelial and myoepithelial elements i.e., dual origin. [1] Pleomorphic adenoma was first termed by Willis. In old times, it was also termed as branchioma, mixed tumor, endothelioma, endochroma, enclavoma, etc. It is more commonly situated in parotid glands (85%) followed by minor salivary glands (10%) and the submandibular glands (5%). It can also be located in hard palate and soft palate glands of saliva, upper lip, cheek, tongue, and floor of the mouth. The most common age of occurrence is in the third to fifth decade with more female predilection. According to the World Health Organization, PA is a tumor which is localized and presents pleomorphic or mixed characteristic of epithelial origin which is interwoven with mucoid tissue, myxoid tissue, and chondroid masses. [2] The superficial lobe is the commonest site of origin of Adenomas but occasionally it may also invade the deeper tissues of the gland and the parapharyngeal space. Pleomorphic adenoma generally presents as a slowly progressing painless swelling. [3]

CASE REPORT:

A 53-year-old male patient reported to the OPD of Karpaga Vinayaga Institute of Dental Sciences, with a chief complaint of swelling below his left ear for past 6 months. History revealed the swelling was painless, and initially smaller in size which gradually increased to the present size. However, occasionally pain occurs which is sharp and pricking in nature. Past medical history revealed he had a history of trauma and sustained injury to his occipital region of head before 4 years with no loss of consciousness and no history of bleeding from nose and ear. He had bell’s palsy on the left side and was under medication for past 6 months.

Extra-oral clinical examination revealed a marked facial asymmetry. Absence of wrinkles on forehead and obliteration of naso-labial fold on left side of face was seen. There was deviation of mouth towards right side during smiling and his left eye ball rolled upwards during the attempt of closure of eyes suggestive of Bell’s phenomenon. The left ear lobule was slightly everted. On inspection, a well-defined, solitary, ovoid, lobular swelling, 2×3 cm in diameter was seen on the left lower third of the face. Anteriorly it extends 3-4cm away from the angle of the mouth, posteriorly it extends to the mastoid region, superiorly below the ala-tragus line, and inferiorly along the lower border of mandible. The left ear lobule was slightly everted. The skin over the swelling was stretched with no secondary changes. On palpation, all inspection findings were confirmed with respect to site, size, shape, and number. The swelling was sessile, firm in consistency, nontender, non-fluctuant, non-reducible, non-pulsatile and it is fixed to the underlying structures and the overlying skin.

Intraoral examination revealed no significant findings. The swelling was covered by intact healthy mucosa. A provisional diagnosis of pleomorphic adenoma was given. The patient was then subjected to fine needle aspiration cytology and according to its findings, the final diagnosis of pleomorphic adenoma was made. After obtaining the informed consent of the patient, excision of the left parotid gland along with the tumor mass was made.
FIGURE 1: FRONT VIEW

FIGURE 2: SIDE VIEW
DISCUSSION:

Salivary gland tumor classification encompasses a vast list of benign and malignant neoplasms. [1] Pleomorphic adenoma mostly presents as a solitary mobile slow-growing, painless mass, which may be present for many years. Symptoms and signs mainly depend on size, location, and potential to undergo malignant transformation [2]. Salivary gland neoplasms may be benign or malignant, and malignant tumors can be primary or metastatic. Due to the epithelial and the non-epithelial histology of the affected organ, many histological types of parotid tumors are possible, although some are rare. [3] Pleomorphic adenoma arises from the mixture of ductal and myoepithelial elements. The term “Pleomorphic adenoma” refers to the variable morphology in the basic tumor pattern, rarely are the individual cells pleomorphic. The term “Mixed tumor” also describes the variable morphology with a prominent appearing “stromal” component. However, the tumor is not truly “mixed” as it is not derived from more than one germ...
Pleomorphic adenoma is common in young and middle-aged adults in the third to sixth decades of life. It is the most common primary salivary gland tumor in children. It is more common in females with a female-to-male ratio of 2:1. [5] Pleomorphic adenoma has shown consistent cytogenetic abnormalities chiefly involving the chromosome region 12q13-15. The putative pleomorphic adenoma gene (PLAG1) has been mapped to chromosome 8q12.

The tumor confirmation is made by computed tomography (CT) and Magnetic resonance imaging (MRI). MRI is preferred as it presents better delineation, elaborate tumor margin, and the tumor location with respect to its surrounding tissues. But for differentiating malignancy and benign lesions, Fine-needle aspiration biopsy (FNAB) is used. Although these tumors are encapsulated, they still are excised with adequate margins involving surrounding normal tissues. This is because of pseudopодic exhibits microscopic extensions into the surrounding tissues because of dehiscence in false capsule. For this reason, incisional biopsy is avoided to prevent spillage of tumor cells. [6]

Differential diagnosis for pleomorphic adenoma includes palatal abscess, odontogenic cyst, nonodontogenic cyst, soft tissue tumors-like fibroma, lipoma, neurofibroma, neurilemmoma, lymphoma, or other salivary gland tumors. [7]

Rarely, a malignant tumor may arise within the tumor, a phenomenon known as carcinoma ex pleomorphic adenoma. There is a second class of tumors, which are called metastasizing benign mixed tumors. These tumors have a histologically benign appearance but usually have a history of multiple local recurrences. Metastases occur several years after the initial diagnosis and may occur in the lungs, regional lymph nodes, skin and bones. The usual clinical course is good but there are cases which have an aggressive clinical course leading to death in 22% of cases. Fortunately, this last category of tumors is very rare.

Complete excision of the tumor is the definitive treatment, as enucleation can result in recurrence. Facial nerve has to be preserved if PA occurs in the parotid gland.

CONCLUSION:

Pleomorphic adenomas are benign salivary gland neoplasms that can grow into extensive sizes if left untreated and hence need to be diagnosed early. Since these tumors are radio-resistant, the use of radiation therapy is of little benefit and is therefore contraindicated.

CONFLICTS OF INTEREST:

None

REFERENCES:

7. Sreenivas SD. Pleomorphic adenoma of the palate—a case report. JIDA. 2011;5:4