

Pleomorphic Adenoma: A Case Report

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ABSTRACT

Introduction: Pleomorphic adenoma is a benign salivary gland tumour that most commonly originates in the parotid gland, mainly involving the superficial lobe. Pleomorphic adenoma is a painless growth that grows in size over time if left untreated. It is more common in women and occurs between the ages of 30 and 60. Surgical excision exposes the facial nerve to injury as it penetrates the substance of the parotid gland and separates into terminal branches.

Case Report: We discuss a case of a pleomorphic adenoma of the right parotid gland presented by a 35-year-old lady and handled by surgical excision, as well as details of the critical structures encountered.

Conclusion: Despite being a benign tumor of the salivary gland, pleomorphic adenoma should be detected early, and complete local surgical excision with negative microscopic margins is advised. Whenever possible, care should be taken to protect the facial nerve when dealing with the parotid gland. For preventing recurrence and malignant transformation, care must be made to completely eradicate the lesion.

Key Words: Pleomorphic Adenoma, Salivary Gland Tumor, Parotid Gland, Facial Nerve, Benign Tumor, Parotid Gland

INTRODUCTION

Willis proposed the term pleomorphic adenoma. In the past, it was known by several names such as mixed tumor, enclavoma, branchioma, endothelioma, enchondroma and so forth. Pleomorphic adenoma (PA), also known as benign mixed tumor, is the most prevalent salivary tumor, accounting for up to two-thirds of all neoplasms of the salivary gland. Pleomorphic adenoma (PA) is by far the most common benign salivary gland neoplasm, accounting for 70-80% of total salivary gland. It is also known as mixed tumor, since it encompasses a wide mix of ductal and myoepithelial elements in one single tumor. The term "pleomorphic" is used to describe the histology of the tumor cells. The majority of cases involve the parotid gland. Intraoral pleomorphic adenomas occur in the minor salivary glands often in the palate, submandibular glands and rarely the sublingual glands.^{1,2,3}

PA usually manifest as a slow progressing asymptomatic, parotid gland swelling without facial nerve involvement. They

are best treated by a wide local excision with good safety margins and follow-up for at least 3-4 years.

CASE REPORT

A 40-year-old female patient reported to Oral Pathology department of DY Patil University School of dentistry, complaining of a progressive volume increase in the palate; the lesion exhibited a 4 to 5 years evolution. Physical examination revealed facial asymmetry at the expense of the facial middle third; with predominance in the right half of the face and presence of labial incompetence. (Fig 1)

Intraoral examination revealed a large exophytic mass of the right hard palate extending to the soft palate, yellowish in color, and soft to palpation. (Figure 2)

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Figure 1: Clinical presentation of swelling.

The lesion measured approximately 4 x 5 cm and was oval-shaped with smooth surface.

The working or clinical diagnosis was cystic lesion or other soft tissue tumor and pleomorphic adenoma.



Figure 2: Intra-oral picture.

Incisional biopsy was done in the department of Oral & Maxillofacial Surgery. The specimen was sent to the Oral Pathology Department for histopathologic examination. (Fig 3)

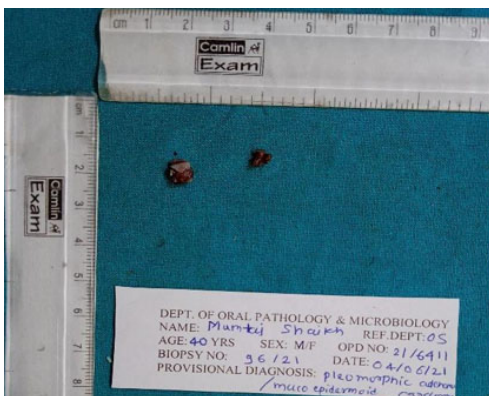


Figure 3: Biopsy specimen picture.

Histopathologically, H & E-stained section showed lobular appearing areas of ductal & benign neoplasm with myoepithelial and epithelial components. The duct-like structures showed mucouspooling. Areas of hyalinization were seen in some areas. Extravasated RBCs were seen in some areas. (Fig 4) (Fig5)

The final diagnosis rendered was pleomorphic adenoma with a significant adipose tissue component. The patient was then referred to Oral Surgery for complete surgical excision.

No other investigations or diagnostic tests were performed. Surgical excision was completed and the pathology findings were consistent with the incisional biopsy results of pleomorphic adenoma with significant adipose tissue component.

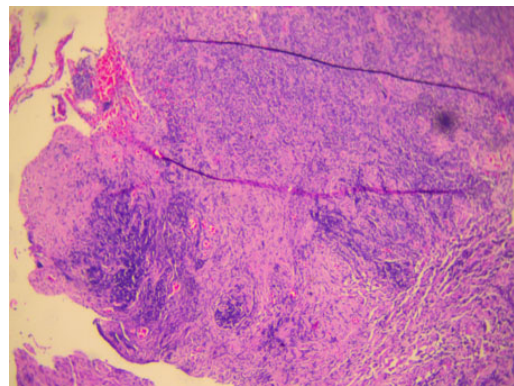


Figure 4: Histology seen under 10x magnification.

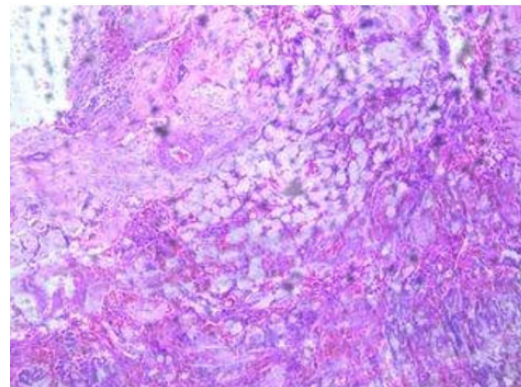


Figure 5: Histology seen under 40x magnification.

DISCUSSION

Pleomorphic Adenomas accounts for the majority of benign salivary gland neoplasms. The most common site of PA of the minor salivary gland is the palate followed by lip, buccal mucosa, floor of mouth, tongue & tonsils.

Depending on its location, PA can vary in size, it generally appears as an asymptomatic tumor exceeding 6 cm diameter.

Due to the lesion's slow growth, if not treated in its initial stages, it can reach large proportions even to the point of disturbing vital functions such as breathing, swallowing and phonetics. The majority of salivary gland tumours, known as pleomorphic adenomas, affect the parotid gland in 53-77% of cases and account for 45-74% of all cases. The percentage of cases of parotid gland and salivary gland tumours that are followed by a Warthin tumour varies from 6 to 14%. However, Warthin's tumour is more common among senior men who have smoked in the past, and it most frequently develops in the lower part of the parotid region, close to the angle of the mandible.

The best method of treating this condition is to surgically remove the tumour mass.⁴ Untreated cases progressively get bigger while being painless. For cases involving the superficial lobe, the facial nerve is identified and preserved when performing a superficial parotidectomy.

Pleomorphic adenoma has a great prognosis with a cure rate of more than 95% when appropriate surgery is performed. From one form of pleomorphic adenoma to the next, as well as in various regions of the same tumour, as the name suggests, a surprising degree of microscopic variation can be found. Its stroma, which resembles mesenchyme, is made up of a mixture of glandular epithelial and myoepithelial cells.

CONCLUSION

Despite being a benign tumor of the salivary gland, pleomorphic adenoma should be detected early, and complete local surgical excision with negative microscopic margins is advised.⁵ Whenever possible, care should be taken to protect the facial nerve when dealing with the parotid gland. For preventing recurrence and malignant transformation, care must be made to completely eradicate the lesion.

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