



ORIGINAL RESEARCH PAPER

Surgery

PLEOMORPHIC ADENOMA OF THE HARD PALATE -A CASE REPORT.

KEY WORDS: pleomorphic adenoma, hard palate, minor salivary gland.

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ABSTRACT

Pleomorphic adenomas involving minor salivary glands are a relatively rare entity. This paper presents a case of 18 year old male who was diagnosed and treated for pleomorphic adenoma of left hard palate and showed no recurrence on a two-year follow up.

INTRODUCTION:

Salivary gland tumours constitute about less than 4% of all head and neck tumours.³ Among the various salivary gland tumours, pleomorphic adenoma happens to be the commonest one constituting to 60-70%.²

Most of the pleomorphic adenomas involve the major salivary glands, the parotid gland being the most commonly affected one.³ It is less commonly seen in the submandibular salivary gland (10%) and is seldom encountered in the sublingual gland (1%).⁵ The tumor can occur at any age but is encountered mostly in the young and middle aged adults between 30 to 60 years of age.⁴ Also, it is seen to exhibit a slight female predilection as 60% of the affected are women.⁶

Palatal pleomorphic adenomas usually present as painless, slow-growing smooth surfaced dome shaped masses commonly on the posterolateral aspect of the palate.⁴ The other commonly involved intraoral sites include the lips and buccal mucosa.³ Intra-orally it may also occur at the floor of the mouth, retromolar area, and oropharynx.⁶

CASE REPORT:

This is a case report of an eighteen year old male, who reported to our department complaining of a swelling in his upper left jaw from one year not associated with pain or bleeding (Figure 1). The swelling was initially small and slowly progressed to attain the present size. However, there was no mobility of teeth in relation to the area of swelling.

The patient had a moderate built and normal gait and was well aware of his environment. Also, no signs of anemia, cyanosis or clubbing were noticed. The condition of his hair, nails and skin appeared apparently normal. The vital signs were well under normal limits. The examination of his face revealed no detectable deformity. Also there were no signs of any neurological deficit. There was no tenderness over the maxillary antrum region on palpation and neither any signs of nasal obstruction were present. Examination of the lymph nodes revealed that the left Submandibular lymph node was palpable, single in number, soft, non tender and mobile, measuring about 1.5cms in diameter.

Intraoral examination revealed normal mouth opening with normal mucosa and tongue. However, the periodontal status revealed "chronic generalized gingivitis". In the left Maxillary posterior component there was a well-defined, localized swelling extending anteroposteriorly from rugae to soft palate measuring about 5cms and medially extending to the midpalate, measuring about 3 cms (Figure 2). The surface was smooth, with no discharge.

On palpation, the swelling appeared soft to firm in consistency,

non tender, except for the central area, which yielded to pressure and was softened. There was no discharge on manipulation. The teeth related to the area of swelling were not mobile and the area surrounding the swelling was normal and unyielding to application of pressure.

Examination of the left buccal mucosa revealed a patent stenson duct opening with no area of erythema or inflammation and the salivary discharge also appeared to be normal on stimulation.

Based on the history and clinical findings, a provisional diagnosis of pleomorphic adenoma of the left palate was established.

Differential Diagnosis considered were- Adenoid Cystic Carcinoma, Central giant cell granuloma of the left posterior maxilla and Carcinoma of the left maxillary antrum.

Patient was then subjected to routine hematological and radiographic investigations.

The OPG findings were normal with no detectable lesion in the area of swelling (Figure 3). The left Maxillary Sinus lining also appeared to be intact. The lamina dura of the associated teeth appeared intact and there was no resorption of roots of the teeth in the region of swelling.

Further, CT scan of the face was performed. Contrast enhanced contiguous axial tomographic sections were obtained which revealed a non enhancing well defined hypodense soft tissue lesion inferior to hard palate on the left side, measuring 32x18x15 mm in size. Also left maxillary sinus mucosal thickening was apparent (Figure 4).

Aspiration from the lesion did not yield any fluid and the lesion appeared to be solid in consistency. Surgical excision of the lesion was performed and the intraoperative picture can be seen in figure 5. The single firm lobulated soft tissue lesion was retrieved along with the capsule (Figure 6). The surgical site was closed and sutures placed (Figure 7).

When the obtained specimen was subjected to histopathological investigation, a well circumscribed tumor mass with variable microscopic pattern i.e a mixture of glandular epithelium and myoepithelial cells within a mesenchyme like background was seen (Figure 8). Ductal epithelium and myoepithelial cells with associated myxomatous background and chondroid material was evident (Figure 9). Also, large anastomosing cords of odontogenic epithelium with loosely arranged vascular stroma was seen. (Figure 10). Hence, the histopathological report confirmed the diagnosis of pleomorphic salivary adenoma of the left palate.

DISCUSSION:

The terms pleomorphic adenoma and mixed tumor both are actually misleading as the tumor is not truly a mixed neoplasm that is derived from more than one germ layer. Instead, it represents an attempt to describe the tumor's unusual histopathologic features i.e. the simultaneous histological presence of the epithelial and mesenchymal tissues.⁴ The tumor typically exhibits an outer layer of myoepithelial cells, an inner layer of epithelial cells and islands of spindle cells over a myxoid background.³ The myoepithelial cells sometimes appear as angular or spindle and some are rounded and demonstrate eccentric nucleus and eosinophilic hyalin, thus resembling plasma cells.⁴ The highly characteristic 'stomal' changes are believed to be produced by myoepithelial cells.⁸ Clinical differential diagnosis includes palatal abscess, soft tissue tumors such as fibroma, lipoma, neurofibroma, neurilemmoma as well as other salivary gland tumors.³

Optimal initial management is essential to reduce the risk of recurrence and malignant transformation and hence, surgical resection remains the standard treatment of parotid pleomorphic adenoma.¹ Radical surgery is the mostly common treatment of choice for these tumours as inadequate resection leads to local recurrence.^{3,7} During excision, as far as possible, the capsule should not be breached when attempting to surgically remove the mass because breach of capsule is associated with increasing recurrence rates.³

This paper describes a case of pleomorphic adenoma of minor salivary gland in palate of a young male patient who was treated with wide surgical excision showing no evidence of recurrence 2 years post operative follow up.

A case of benign pleomorphic adenoma of the palate in a 32 year old female was reported in 2015, who presented as a painless swelling in the palate and was treated with wide excision of the lesion with periosteum.⁶

A similar case of a pleomorphic adenoma of the hard palate, which was diagnosed in a 46-year-old female patient was reported by Nigel R. Figueiredo et al in 2015 and was again treated by surgical excision.⁸

The prognosis is excellent, with a cure rate of more than 95%. The risk of recurrence is low for tumors of minor glands i.e the palate, lips and buccal muosa.⁴ The various risk factors associated with tumour recurrence may include an incomplete initial surgical management with capsular rupture or enucleation, multinodular histological types, young age, and a history of recurrent adenoma.¹

Recurrence after many years of surgical excision as well as malignant transformation should be a concern and therefore long-term follow-up is necessary. Malignant degeneration is a potential complication, resulting in carcinoma ex pleomorphic adenoma. The risk of malignant transformation is only 5% of all cases.⁴

If a rapid increase in size of the mass is noted, the lesion should be dealt carefully with a suspicion of malignant transformation. Any bleeding or ulceration are additional factors which might be indicative of the same. In case of palatal erosions, imaging serves great importance in ruling out malignancy wherein one should look for intact fat planes, the presence of which rules out malignancy.³

A rare case report of an unusual, partially encapsulated carcinoma ex pleomorphic adenoma of palate was reported by Kyoung Mee Kim et al in a 36 year old male patient, presenting as an ovoid elevated palatal mass for six months. The carcinomas which commonly develop in pleomorphic adenoma are adenocarcinoma and undifferentiated carcinoma but this reported case showed evidence of squamous cell carcinoma on immunohistochemistry.¹⁰

To conclude, pleomorphic adenomas involving minor salivary glands are a relatively rare entity, and keeping in view the recurrence even years after surgical excision and risk of malignant transformation, seek long term follow up.



FIGURE 1: CLINICAL PICTURE OF THE PATIENT



FIGURE 2: INTRAORAL PICTURE OF THE LESION



FIGURE 3: OPG SHOWING NORMAL FINDINGS

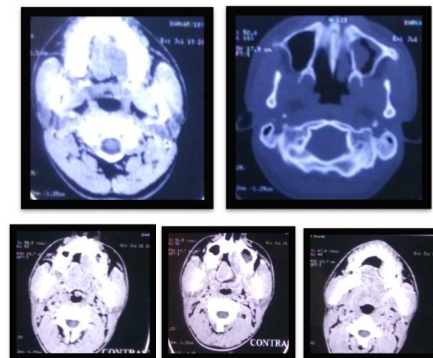


FIGURE 4: AXIAL TOMOGRAPHIC SECTIONS SHOWING SOFT TISSUE LESION INFERIOR TO LEFT PALATE



FIGURE 5: INTRAOPERATIVE PICTURE OF THE PATIENT



FIGURE 6: EXCISED LESION IN TOTAL



FIGURE 7: POSTOPERATIVE PICTURE OF THE PATIENT

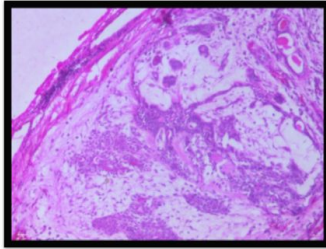


FIGURE 8: HISTOPATHOLOGICAL IMAGE SHOWING WELL CIRCUMSCRIBED TUMOR MASS WITH VARIABLE MICROSCOPIC PATTERN.

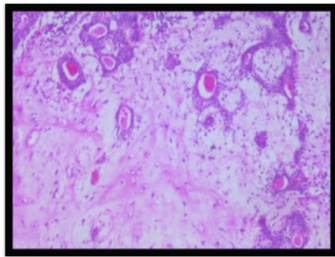


FIGURE 9: DUCTAL EPITHELIUM AND MYOEPITHELIAL CELLS WITH MYXOMATOUS BACKGROUND AND CHONDROID MATERIAL.

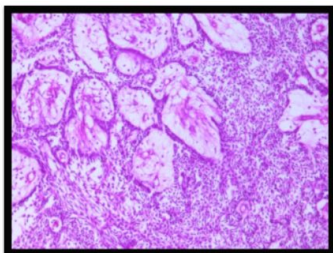


FIGURE 10: LARGE ANASTOMOING CORDS OF ODONTOGENIC EPITHELIUM WITH LOOSELY ARRANGED VASCULAR STROMA.

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