

Pleomorphic Adenoma of Hard Palate: A Case Report

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ABSTRACT

Pleomorphic adenoma, also known as benign mixed tumour, is the common salivary gland tumor reported in literature. Most of the time, these tumors occur mainly in major salivary glands; Parotid gland happens to be the commonly involved one. This case report discusses a case of pleomorphic adenoma of hard palate in a young woman coming from Tifelt town after complete excision of the tumour, which was confirmed by a biopsy specimen. Even though these tumors are painless and slow growing, it is crucial to identify these cases rather early to prevent eventual malignant complications.

KEYWORDS: Benign mixed tumour, Hard palate, Pleomorphic adenoma, Salivary gland.

INTRODUCTION

The pleomorphic adenoma otherwise called benign mixed tumor, is the most common major salivary glands neoplasm.¹ It accounts for 53% to 77% of parotid tumors, 44% to 68% of submandibular tumors and 33% to 43% of minor gland tumors.² Pleomorphic adenomas are derived from a mixture of ductal and myo-epithelial elements.^{2,3} The terms pleomorphic adenoma and mixed tumor both represent attempts to describe the tumor's unusual histopathologic features.⁴ The tumor often has a

prominent mesenchyme appearing stromal component. However, it is not truly a mixed neoplasm that is derived from more than one germ layer.^{1,4}

The aim of this paper is to describe a case of pleomorphic adenoma of minor salivary gland in palate of a young woman patient who was treated with wide surgical excision showing no evidence of recurrence one year post-operative follow up.

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CASE REPORT

A 27 year woman patient, coming from Tifelt town, reported to the department of oral surgery with a slow growing left hard palate mass that had been present for the 7 past months. The non-tender mass was exerting pressure on the patient’s tongue and this prompted her to seek medical attention. On general examination, all the vital signs were within the normal range with no history of diabetes or hypertension. On examining intra-orally, a diffuse roughly oval in shape swelling was present in relation to the left side of the hard palate measuring roughly about 2 x 2 cm.(Figure No.1) Antero-posteriorly, the swelling extended from the distal aspect of left first premolar to the left side maxillary tuberosity area. On palpation of the lesion intraorally, the swelling was non tender, firm in consistency, without any fluctuation.



Figure No.1: Pre-operative view of the lesion, showing the left hard palate swelling

On the other hand, panoramic radiograph showed no bone resorption in the region of the swelling, which is located in front of the left superior premolars and molars. Under local anaesthesia, an incision was given and dissection done and the whole tumor mass was excised along preserving the capsule of the mass. (Figure No.2) The entire mass was sent

for histopathology study. In the meantime the patient was under antibiotic coverage.



Figure No.2: Panoramic Radiography showing no bone resorption next to the left superior premolars and molars.

Grossly, the lesion was in the form of an ovoid well demarcated, partially encapsulated, red-white partly myxoid, partly rubbery mass, measuring 2.5 × 1.7 × 1.5 cm, with solid cut surface (Figure No.3).

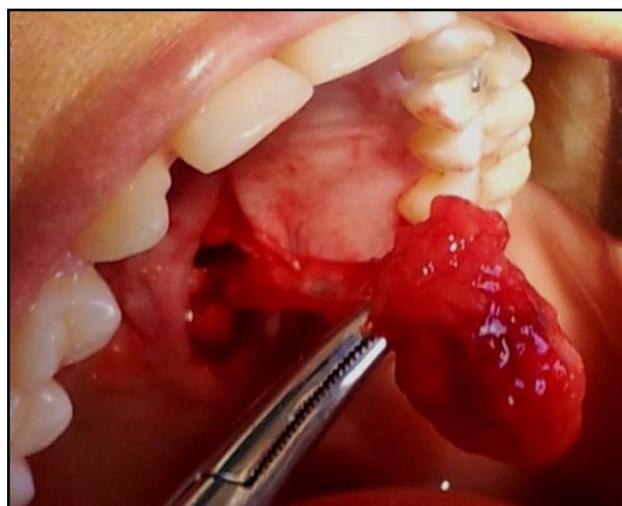


Figure No.3: Per-operative view showing the surgical excision of the tumor

On histology, a well-circumscribed growing mass was seen. The neoplastic proliferation had biphasic populations of epithelial and mesenchymal cells measuring 20×15×10mm. The former was composed of glandular structures bordered by round, oval cells with large

hyper chromatic nuclei, pink cytoplasm and myoepithelial basal cell layer. The stroma contained a mixture of myxoid, hyaline and chondroid components. No mitotic figures or necrosis was observed (Figure No.4 &5).

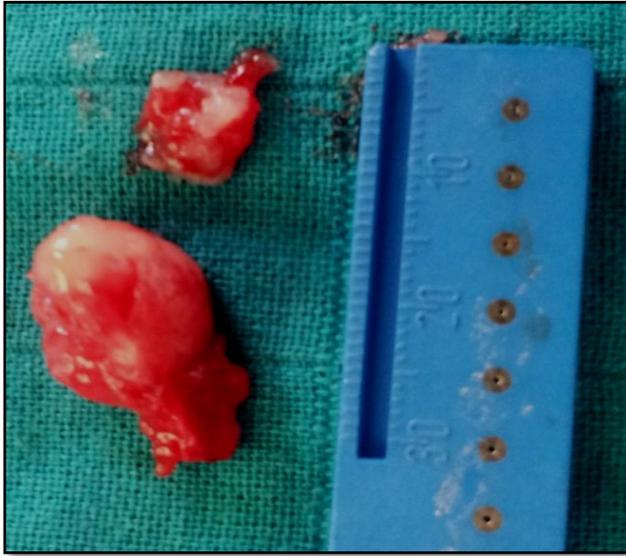


Figure No.4: The excised specimen of pleomorphic adenoma of hard palate

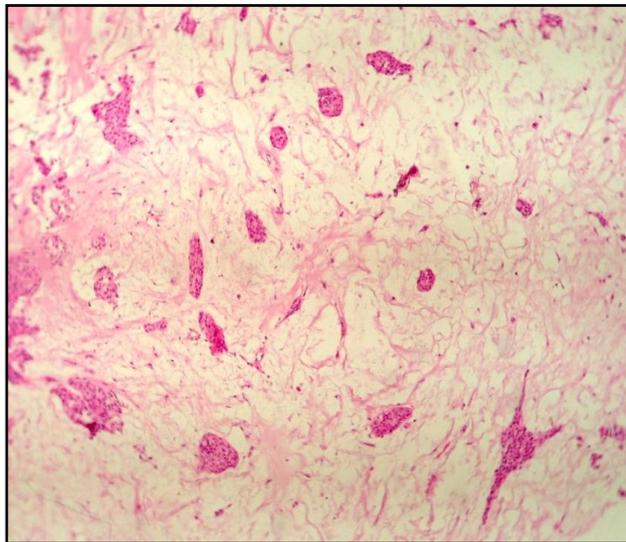


Figure No.5: Histologic of the tumor showing the ductal epithelial and myoepithelial elements with chondromyxoid stroma (H&E, 10X)

Postoperative period was uneventful. The patient was followed up over a period of one year and no recurrences were observed so far. (Figure No.6)



Figure No.6 : One year later(Follow-up)

The final histopathology report confirmed the diagnosis of pleomorphic adenoma of minor salivary gland of hard palate.

DISCUSSION

Pleomorphic adenoma appears as a painless slowly growing firm mass. The tumor can occur at any age but it is more frequently seen in young and middle aged adults between the ages of 30-60. It is the most common salivary gland tumor, with a slight female predilection.¹⁻³ The tumor is mobile in the initial stages but later, as it grows in size, it becomes less mobile. The palate is the most common site for minor gland mixed tumor.^{5,6} Palatal tumors almost are always found on the postero-lateral aspect of the palate, presenting as smooth surface, dome shaped masses.⁷ The pleomorphic adenoma is typically a well circumscribed, encapsulated tumor. The capsule may be incomplete or show infiltration by tumor cells. This lack of complete encapsulation is more common for minor salivary gland tumors.^{5,7}

These tumors are encapsulated and hence complete removal. Care should be taken to

leave at least 1mm margins around the lesion. Then, while removing the mass rupture of the capsule is to be avoided to minimize the risk of recurrence.⁷

The tumor is composed of mixture of glandular epithelium and myoepithelial cells within a mesenchyme like background. The epithelium often forms ductal and cystic structures or may occur as islands or sheets of cells.⁸ Keratinising squamous cells and mucous producing cells can also be seen. Myoepithelial cells sometimes appear as angular or spindle and some are rounded and demonstrate eccentric nucleus and eosinophilic hyalinised, thus resembling plasma cells.⁹ The highly characteristic stromal changes are believed to be produced by myoepithelial cells. In many tumors, the stroma exhibits area of an eosinophilic, hyalinised changes. Occasionally, salivary gland tumors are seen that are composed almost entirely of myoepithelial cells with no ductal elements. Such tumors are often called myoepitheliomas.⁸⁻¹¹

Treatment of choice is surgical excision. The tumors of the hard palate usually are excised down to periosteum, including the overlying mucosa.¹²⁻¹³ The prognosis is excellent, with a cure rate of more than 95%. The risk of recurrence is low for tumors of minor glands.¹⁴ Malignant degeneration is a potential complication, resulting in carcinoma ex pleomorphic adenoma. The risk of malignant transformation remains very low.^{11,14-18} Radiotherapy (RT) is indicated for positive margins, gross residual disease, and recurrent multifocal disease. Equivocal margins or tumor spill are no longer indications for RT, given the high likelihood of local control after adequate surgery alone. Surgical re-excision before adjuvant RT should be attempted to improve the probability of periodic control.¹⁷

CONCLUSION

Pleomorphic adenoma of minor salivary gland is relatively rare, then as early as possible, a diagnosis should be established. Complete surgical excision is the treatment of choice. Recurrence after many years of surgical excision as well as malignant transformation should be a concern to oral surgeons and therefore, long- term follow- up is absolutely mandatory.

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