

Case Report

Case Report On Pleomorphic Adenoma Of Hard Palate

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Abstract

Pleomorphic adenoma is a benign mixed tumor composed of epithelial and mesenchymal components arranged within various morphological patterns. It derives its name from the architectural pleomorphism seen by light microscopy. This mixed benign tumor is one of the salivary gland tumors affecting both major and minor salivary glands and accounts for 40–70% of all tumors. Parotid gland is the most commonly affected of the major group, and palate is the most common site of the minor salivary glands affected. This case report describes a case of mixed tumor in a minor salivary gland located in the anterior region of the hard palate.

Keywords: Benign mixed tumor; Minor Salivary Gland; Palate

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INTRODUCTION

Salivary gland tumours account for 3% of the head and neck tumours. Pleomorphic adenoma is the most common salivary gland tumour, accounting for about 40–70% of all major and minor salivary gland tumors.¹ It is the most common neoplasm of the large salivary glands and affects mostly the parotid gland, less frequently the accessory salivary glands. It derives its name from the architectural pleomorphism seen by light microscopy.² This tumor contains elements of both epithelial and mesenchymal origin.³ It is also called as benign mixed tumour, can occur in the deep lobe of the parotid gland with extension into the parapharyngeal space, which makes it the commonest type of parapharyngeal space tumour.⁴ The most common site of this tumor in the oral cavity is the palatal area followed by the lip, buccal mucosa, floor of the mouth,

tongue tonsil, pharynx, and retro molar area. The majority of minor salivary gland PAs occur in the second decade of life.¹ There is slight predilection for female gender.⁵ Pleomorphic adenoma tumors are painless, well-delineated and covered with normal mucous membrane. Sometimes mucosal ulcerations are observed. Related nodules are singular and mobile. Major gland tumors are usually encapsulated, as opposed to minor gland tumors.² The importance of these lesions lies in the fact that they are more likely to be malignant when associated with minor salivary glands (50%). Benign tumor, though has the potential to attain huge size, generally is a symptom-free mass.⁶ This case report describes a case of mixed tumor in a minor salivary gland of the hard palate.

CASE REPORT

A 45 YEAR old female patient reported to outpatient department of ENT, GGSMC&H, Faridkot with complaint of a slowly enlarging asymptomatic

swelling over hard palate for the last 10 months. There was no preceding history of trauma and no relevant past medical history. On examination there was a 2.3-2.6 cm sized, firm, non-tender, non-ulcerated circumscribed lesion in the anterior part of left side of hard palate. It was adherent to the underlying structures and surface was covered with slight erythematous mucosa. There was no regional lymphadenopathy, general physical and systemic examination was normal. Clinical differential diagnosis was a benign salivary gland tumor, possibly PA, neuroma, neurofibroma, palatal abscess. CT scan PNS (paranasal sinus) (figure 2) revealed a large well-defined heterogeneously enhancing soft tissue density mass arising from hard palate on left side, bulging into oral cavity. No evident extension to nasal cavity. The lesion measured 23x20x26 mm in size. Routine blood investigations were within normal limits. Mucosa around the lesion was marked and incised using the surgical blade. Then the wide dissection was performed and the whole encapsulated tumor mass was excised along with the mucoperiosteum with the boundary line localized in the surrounding healthy tissue. Hemostasis was achieved. The wound was sutured and the mass was sent for histopathological examination which confirmed the diagnosis of pleomorphic adenoma.



Figure 1: Extraoral frontal view

DISCUSSION

The term pleomorphic describes the embryogenic origin of these tumors, which contains both epithelial and mesenchymal tissues. It has been postulated that these tumors arise from intercalated and myoepithelial cells. Intra oral PA appears as slowly growing, painless mass, usually in the fourth or fifth decade. Pain, tenderness and ulceration are unusual.⁷ In the present case 45 year old female patient reported with complaint of a slowly enlarging asymptomatic painless swelling over

hard palate for the last 10 months. Because of tightly bound nature of the hard palate mucosa, it appears to be fixed. While in cases of lips and buccal mucosa, it is freely movable. PA of palate is seldom allowed to attain a size greater than 1–2 cm in diameter because it causes difficulty in mastication, speech, and swallowing.

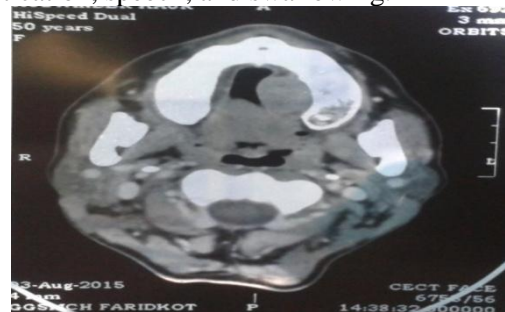


Figure 2: CT Scan PNS

It is detected and treated earlier than tumors of major salivary glands.⁸ In the present case lesion measured 23x20x26 mm in size, non-ulcerated and was adherent to underlying structure. If the overlying mucosa is ulcerated and ulceration is not due to any trauma or biopsy, malignancy should be suspected.⁸ The main diagnostic modalities are FNA biopsy, core needle biopsy, Fine Needle Aspiration Cytology (FNAC) and imaging.^{6,7} Cytological finding in PA are typically of mixed epithelial cells and mesenchymal elements. Imaging with ultrasound, MRI, or computed tomography (CT) may be used depending on the site and size of tumor.⁶ In our case, CT scan PNS was primarily used to determine size and more importantly infiltration of lesion into the surrounding tissue. FNA operated in experienced hands, can determine whether the tumor is malignant in nature with 90% sensitivity. FNA can also distinguish primary salivary tumor from metastatic disease. Core needle biopsy is more invasive but is more accurate compared to FNA with diagnostic accuracy greater than 97%. Furthermore, core needle biopsy allows more accurate histological typing of the tumor. In terms of imaging studies, ultrasound is also frequently used to guide FNA or core needle biopsy. CT is excellent for demonstrating bony invasion. MRI provides superior soft tissue delineation when compared to CT only. CT scan and MRI can provide information of the location, size and extension of tumor to surrounding superficial and deep structures.⁷ The differential diagnosis for this case includes palatal abscesses, odontogenic and non-odontogenic cysts, soft tissue tumors such as

fibroma, lipoma, neurofibroma, neurilemmoma, and lymphoma as well as other salivary gland tumors.⁹ Palatal abscess could be ruled out by clinical examination since the source of a palatal abscess, which is typically a non-vital tooth in the vicinity or a localized periodontal defect, was not found. Both odontogenic and non-odontogenic cysts could be ruled out at the time of exploration into the mass since it did not demonstrate a cystic nature. Palatal tissues contain components of soft tissue and harbor minor salivary gland tissues.² Histologically, it is highly variable in appearance. Classically it is biphasic and is characterized by a mixture of polygonal epithelial and spindle-shaped myoepithelial elements in a variable background stroma that may be mucoid, myxoid, cartilaginous or hyaline.¹⁰ Epithelial elements may be arranged in duct-like structures, sheets, clumps or interlacing strands and consist of polygonal, spindle or stellate-shaped cells. Areas of squamous metaplasia and epithelial pearls may occur. The tumor is not enveloped, but is surrounded by a fibrous pseudocapsule of varying thickness. The tumor extends through normal glandular parenchyma in the form of finger-like pseudopodia, but this is not a sign of malignant transformation.^{10,11} Pleomorphic adenomas need to be managed diligently for its capacity to recur and to undergo malignant transformation. Capsular rupture and subsequent tumour spillage during excision is the most important risk factor for recurrence. The risk of malignant change has been report to be up to 10%. Features predictive of malignant change include age, tumour size, a long history of the mass, submandibular location, and the presence of hyalinized stroma.⁴

CONCLUSION

Management of pleomorphic adenoma need a thorough workup by a multidisciplinary team of specialists. Surgery forms the basis of their management as it serves both diagnostic and therapeutic purposes. Large or deep parotid lobe tumours, and those suspected to be malignant, should be imaged preferably with MRI in order to decide on the expected extent of resection and to determine the potential risk to vital structures.

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