



SOFT PALATE PLEOMORPHIC ADENOMA OF MINOR SALIVARY GLAND

ENT

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ABSTRACT

Pleomorphic adenoma is the most common benign of salivary glands. It rarely involves minor salivary glands. Among the major salivary gland parotid is the most commonly involved and palate is the most common site amongst minor salivary gland. This article presents a case of pleomorphic adenoma of the palatal minor salivary gland treated successfully by surgical excision.

KEYWORDS

pleomorphic adenoma., minor salivary gland tumor, palate

INTRODUCTION

Pleomorphic adenoma (PA) is a benign mixed salivary gland tumor. It is composed of epithelial and mesodermal elements arranged in various morphological patterns, embedded in connective tissue stroma, surrounded by a capsule. PA is a salivary gland tumor that affects both the major and minor salivary glands and accounts for 40% to 70% of all tumors [1]. The parotid gland is the most commonly affected major salivary gland. Globally, 13.9% to 51.4% of all salivary gland tumors arise from an intraoral site, and 34.7% to 67.1% of them are benign [2]. PA occurs in the fourth, fifth, and sixth decades of life and is found more commonly in women (60%) than in men (40%) [3]. Among intraoral salivary glands, PA affects the palate most commonly (42.63%), followed by the lip (10%), buccal mucosa (5.5%), retromolar area (0.7%), and the floor of the mouth [4]. In general, they are small in size causing interference with speech and mastication.

Case Presentation

A 18 year-old male patient reported to the department of ENT at Patna medical College and Hospital in Patna, Bihar, India. The patient's chief concern was swelling in his left side of the soft palate region. History revealed the swelling was painless. The swelling was initially small peanut in size and gradually grew over five year to its present size. There were no other symptoms (e.g., numbness, dysphagia, stridor, speech, or masticatory difficulties) due to the lesions. There was no history of trauma, fever, or similar swelling elsewhere in the body. Past medical history revealed the patient was healthy and had no systemic diseases nor deleterious habits. He had no known drug allergy and had not gone for any surgeries of head and neck in past. No history of tooth decay or extraction.

On general physical examination, the patient was moderately built and conscious, well oriented with a normal gait. His vital signs were within normal limits. The extraoral examination showed no facial asymmetry or lymphadenopathy (Figure 1).

On intraoral examination, revealed a single, ovoid-shaped swelling measuring 4 cm x 3 cm in diameter in the left posterolateral surface of the soft palate (Figure 2). The overlying mucosa appeared healthy and smooth with no secondary changes. On palpation, the swelling was unilocular, nontender, nonpulsatile, firm, and immovable with well-defined margins. The mucosa over the lesion was stretched and nonpinchable. Clinical differential diagnosis was a benign salivary gland tumour possibly PA, neurofibromas, palatal abscess, adenoid cystic carcinoma, lymphoma, mucoepidermoid carcinoma.

The results of the patient's routine blood investigations were within normal limits. Intraoral hard tissue examination revealed no anomalies of the teeth in relation to the lesion. Computed Tomography (CT) revealed an isodense structure in palate. Fine needle aspiration cytology (FNAC) suggestive of pleomorphic adenoma. Based on

clinical examination, and history of the lesion and investigations, we decided to surgically excise the lesion under general anesthesia.

A Circumferential incision was made over the soft palate around the swelling. The submucosal flap was raised, and the whole encapsulated tumor mass dissected out (Figure 3). Hemostasis was secured. Flap repositioned and wound closure done using 3-0 vicryl (Figure 4).

The histopathological examination of the mass revealed parakeratinized stratified squamous epithelium along with connective tissue. The underlying connective tissue showed a well-encapsulated mass of sheets and islands of myoepithelial cells and very few duct-like spaces filled with eosinophilic material. Islands of myoepithelial cells were surrounded by eosinophilic myxoid material. This confirmed the diagnosis of PA. The postoperative period was uneventful. The patient is under regular follow-up, and there is no evidence of recurrence after 1 months of follow-up.

DISCUSSION

Daryani et al. reported a case of PA of the palate and made the following differential diagnosis: hematoma (bluish discoloration), mucocele, necrotizing sialometaplasia, mucoepidermoid carcinoma, adenoid cystic carcinoma, and polymorphous low-grade adenocarcinoma [5]. Sharma et al. also reported a similar swelling where the differential diagnosis was a neuroma, palatal abscess, and neurofibroma [1].

A hematoma is a collection of blood within the tissue producing a mass. It is usually a result of trauma and is sudden in onset. In our case, the swelling was gradual and there was no history of trauma.

Mucocele is typically a dome shaped mucosal swelling that can range from 1mm to several centimetres. The mucosa usually has bluish translucent hue due to spilled mucin. Lower lip is most common site but it may occur on soft palate.

Necrotizing sialometaplasia is locally destructive inflammatory condition of salivary gland which most frequently affects palatal salivary glands. It occurs more commonly in adult males but can occur at any age. It affects hard palate more frequently than soft palate. It present initially as a non ulcerated swelling which converts into a crater like proliferative ulcer mimicking a malignant lesion.

Mucoepidermoid carcinoma is the most common malignant salivary gland neoplasm. Minor salivary gland of palate is the most common site of occurrence after parotid gland. It usually presents as asymptomatic slow growing swelling, which is sometimes fluctuant to firm with a blue or red colour resembling a mucocele clinically.

Adenoid cystic carcinoma occurs most frequently in the hard palate. It

presents as a painful, slow growing mass affecting the surrounding structures in middle-aged adults. In our case patient was young and swelling was painless.

Polymorphous low grade adenocarcinoma occurs most commonly in palate and usually presents as asymptomatic slow growing swelling. It usually affects older patients and has definite female predilection.

Pleomorphic adenoma is the most common salivary gland tumor. Most pleomorphic adenomas present as smooth, submucosal mass or nodule. In smears from typical pleomorphic adenomas, three cellular components are present in varying degrees: The epithelial/ ductal cells that are small and cuboidal arranged in flat sheets or trabeculae that can undergo squamous, on optic or sebaceous meta plasma. Myoepithelial cells can be spindles, Stellate or plasmocytoid and are found in clusters, singly or within the chondromyxoid matrix. The presence of chondromyxoid matrix is the most specific feature for making the correct diagnosis.

The treatment of PA is essentially surgical excision [6-7]. Because these tumors are radioresistant, radiation therapy is contraindicated [8]. Though these benign tumors are well- encapsulated, resection of the tumor with an adequate margin of grossly normal surrounding tissue is necessary to prevent local recurrence because these tumors are known to have microscopic pseudopod-like extensions into the surrounding tissue due to "dehiscence" in the capsule [9]. The recurrence of PA is attributed to implantation from capsule rupture, islands of tumor tissue left behind after surgery, and the multicentric nature of PA. Therefore, long-term follow-up is required [10].

CONCLUSIONS

PA of the palate is a not very rare entity, usually seen in adult patients. It is still a challenging tumor for pathologist, radiologist and the surgeon because of its diverse histology and topographical distribution. The most common symptom is a slow-growing, painless submucosal mass on the palate. The surgeon must be aware of its malignant potential if incorrectly diagnosed or treated. Definitive diagnosis lies in the histopathological examination, and treatment is by surgical excision with wide margins. Recurrences are uncommon but may be seen on long-term follow-up.

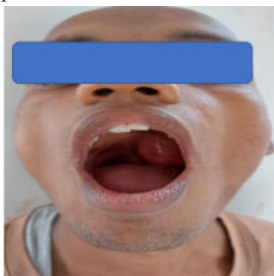


Figure 1: Picture showing the intraoral swelling on the palate



Figure 2: Picture showing preoperative view

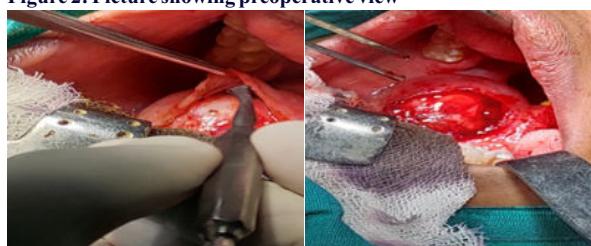


Figure 3: Intraoperative view



Figure 4: Wound closure done using vicryl (3-0).



Figure 5: excised tissue specimen.

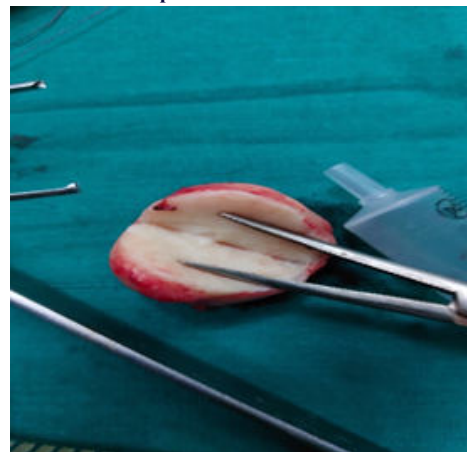


Figure 6: excised tissue specimen cut and shown before sending for histopathological examination.

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