Case Report

Pleomorphic adenoma of the palate in an edentate male patient: An unusual clinical presentation

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ABSTRACT

Pleomorphic adenoma of palate in an edentate patient is a rare entity. Accurate clinical examination, imaging modalities and histopathological examination are needed for early diagnosis and management. The late diagnosis may result in difficulty in speech and swallow, problems in denture fabrication, resorption of bone and may result in complicated treatment procedures. Here, we discuss the case of the edentulous patient with undiagnosed palatal swelling, causing difficulty in denture fabrication. A multidisciplinary approach should always be followed involving oral and maxillofacial physician, radiologist, surgeon and prosthodontist in managing such palatal pathology.

Key words: Edentulous, male, palate, pleomorphic adenoma

INTRODUCTION

Pleomorphic adenoma (PA) is a benign mixed salivary gland neoplasm, which accounts for 40–70% of all tumors. Most commonly affected major salivary gland is parotid (64–80%). PA of minor salivary gland is considered rare when compared to major salivary gland involvement among intra oral minor salivary gland sites, palate is most common location (42–54%). Other sites include upper lip, buccal mucosa, floor of the mouth, tongue, tonsil, pharynx, and retro molar area. Clinically, PA of minor salivary gland appears as slow-growing, painless, smooth, submucosal mass, more frequently in the fourth to fifth decade of life with a female predilection.[1] It has been observed that smaller the size of the salivary gland, greater the chances of malignancy, because of this neoplasm of minor salivary gland needs special attention.[2] Here, we report a rare case of palatal swelling in 65-year-old edentulous male patient, which was causing difficulty in denture construction.

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CASE REPORT

A 65-year-old edentulous male patient reported to the Department of Oral Medicine and Radiology with a chief complaint of a painless swelling on the right side of palate since 1 year and difficulty in chewing due to missing teeth. The swelling was initially small in size and gradually increased to the present size. The swelling interfered with speech and denture fabrication. Patient did not have any numbness, nasal blockage or discharge. There was no history of trauma, fever or similar swelling elsewhere in the body. Past medical history, family history and social history were noncontributory. Past dental history revealed extraction of all teeth 9 months back due to periodontal reasons.

On general physical examination, patient was moderately built, conscious, with the normal gait. The vital signs were within normal limits. On extra-oral examination, there was a solitary diffuse swelling over right middle third of

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face causing mild facial asymmetry. The overlying skin was stretched and of normal color. On palpation, the swelling was firm, nontender with no localized increased in temperature. The regional lymph nodes were not palpable.

On intra-oral examination there was a solitary, roughly oval shaped, sessile swelling measuring approximately 5 cm × 6 cm on the right side of the hard palate. The swelling extend anteriorly from edentulous alveolar ridge of 13 to alveolar ridge 17, posteriorly. Medially, it extends from midline of the hard palate to right maxillary buccal vestibule, laterally. The overlying mucosa was normal in color, smooth with no secondary changes. On palpation, the swelling was firm in consistency, nontender, nonpulsatile and mildly compressible in the center with no mobility. Fine-needle aspiration from the swelling revealed blood tinged fluid, which on cytology examination was nonspecific.

Based on the history and clinical findings, a provisional diagnosis of benign cystic lesion of palate was made, and differential diagnosis of residual cyst, PA of palatal minor salivary glands and low-grade mucoepidermoid carcinoma were considered.

Routine blood investigations were within normal limits. On panoramic radiograph, a well-defined oval radiolucency, measuring 4 cm × 5 cm with regular border involving right maxilla with erosion of palatal bone was evident. The lesion extended from alveolar bone of 13 to tuberosity region in a horizontal dimension and from the alveolar crest to maxillary sinus floor in a vertical dimension on the right side of the maxilla [Figure 1].

Axial computerized tomography (CT) scan revealed a well-defined, heterogeneous, cystic expansile mass lesion in right maxilla causing ballooning of cortex with rarefaction and cortical discontinuity with extension of the bony components in the maxillary soft tissues. The lesion measured 4.5 cm × 3.8 cm × 3.5 cm with superior displacement of the nasal as well as maxillary sinus floor with erosion of the hard palate. On post contrast study, evidence of nodular enhancing soft tissue component with circumferential enhancement at the periphery of the lesion was seen [Figure 2].

Incisional biopsy of the lesion was performed under local anesthesia and the specimen was sent for histopathological examination, which showed epithelial and mesenchymal components along with myoepithelial cells intermixed with highly cellular connective tissue stroma, suggesting the diagnosis of PA [Figure 3]. The patient was sent to oral and maxillofacial surgery for further management where the lesion was completely excised under general anesthesia. The histopathological features of excised specimen further confirmed the diagnosis of PA. The postoperative period was uneventful. The patient is under regular follow-up, and there is no evidence of recurrence on 3 months follow-up. Patient is referred to prosthodontist for denture fabrication.

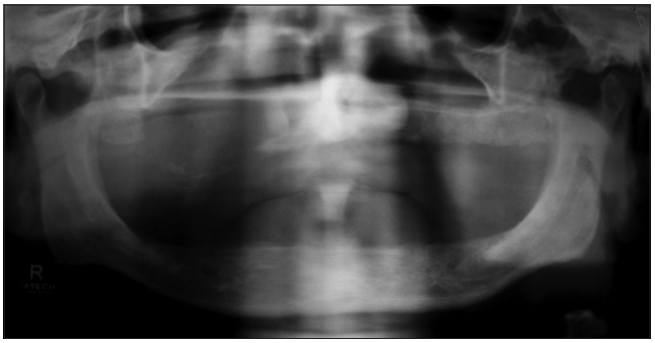

Figure 1: Panoramic radiograph showing well circumscribed radiolucency of right maxilla

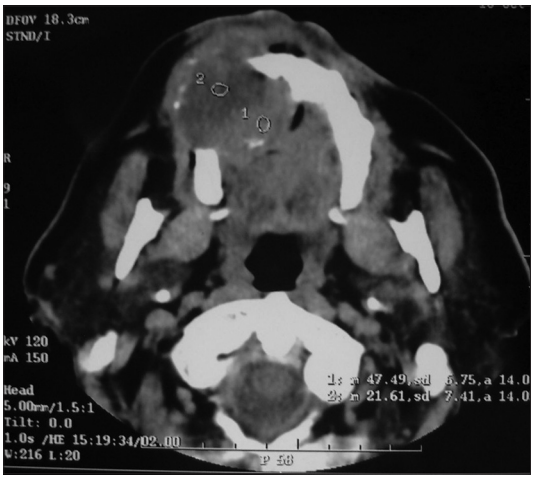

Figure 2: Axial computerized tomography scan showing hypodense, expansile osteolytic lesion

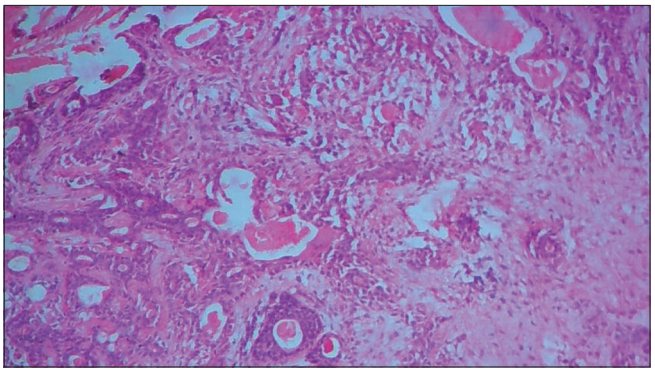

Figure 3: Photomicrograph showing epithelial and mesenchymal components in connective tissue stroma (H and E, ×40)

DISCUSSION

Pleomorphic adenoma is a mixed salivary gland tumor originating from the epithelial and mesodermal elements. It consists of acini, cords and thin strands of epithelial cells suspended in stroma that often has a myxomatous appearance.[3] PA is the most common salivary gland tumor. 84% of the PAs occur in the parotid, 8% in the submandibular and 4–6% in the minor salivary glands.[4] Females are affected twice as compared to males. It generally occurs in the fourth to fifth decades of life.[1] Clinically, intraoral PA appears as smooth, painless, fixed, submucosal mass, commonly seen on the posterior lateral aspect of the palate with slow growth rate. Rapid growth in this neoplasm gives suspicion of malignancy.[5] The present case also had a slow growth rate. Reason for a fixed nature of mass is the tightly bound nature of the hard palate mucosa, whereas, in other intraoral sites, it is freely mobile. In general, they are smaller in size, but they grow to attain larger size causing interference with speech and mastication.[6] In the present case, patient also had similar problem and difficulty in denture fabrication.

The imaging aids for palatal cystic swelling include conventional radiographs, ultrasound, CT and magnetic resonance imaging (MRI). These modalities are useful methods in determining the exact size, extension of the lesion as well as confirming any bone involvement.[7] MRI gives better information regarding soft tissue delineation as compared to CT scan.[8]

Histopathologically, it is an epithelial tumor of complex morphology, with both epithelial and myoepithelial components arranged in patterns and embedded in connective tissue stroma, surrounded by capsule. The present case also showed similar characteristic features of PA.[3,9]

The treatment of PA is surgical excision. Wide surgical excision with an adequate margin of normal surrounding tissue is necessary to prevent local recurrence. Similar treatment approach was used in the present case as the palatal growth was a great hindrance to the denture fabrication. Reasons for recurrence may include incomplete surgical excision, accidental seeding of tumor cells and rupture of the capsule.[7] Our patient has been followed-up for 3 months, has excellent healing with no signs of recurrence and patient has been referred for denture fabrication. Overall, the prognosis for PA of minor salivary glands is generally considered to be better than that for those arising in the major salivary gland.

CONCLUSION

Pleomorphic adenoma is a benign tumor, which is uncommon in the minor salivary glands. Early diagnosis and wide local surgical excision results in complete removal of the pathology with no recurrence. There are more chances of malignancy in minor salivary gland, because of which a high index of suspicion and an adequate clearance of the tumor with regular follow-up of the patient is the key to successful treatment of such tumors. Furthermore, we emphasise the need for multidisciplinary approach including oral physician, oral radiologist, oral surgeon, and prosthodontist in managing palatal pathology in the edentulous patient, as it was done in the present case.

REFERENCES

1. Waldron CA, el-Mofty SK, Gnepp DR. Tumors of the intraoral minor salivary glands: A demographic and histologic study of 426 cases. Oral Surg Oral Med Oral Pathol 1988;66:323-33.
2. Neville BW, Damm DD, Allen CM, Bouquot JE, editors. Oral and Maxillofacial Pathology. Philadelphia: WB Saunders; 2002.
3. Batsakis JG. Neoplasms of the minor and 'lesser' major salivary glands. In: Tumors of the Head and Neck. Baltimore: The Williams and Wilkins Company; 1981. p. 38-47.
4. Chau MN, Radden BG. A clinical-pathological study of 53 intra-oral pleomorphic adenomas. Int J Oral Maxillofac Surg 1989;18:158-62.
5. Weber RS, Palmer JM, el-Naggar A, McNeese MD, Guillamondegui OM, Byers RM. Minor salivary gland tumors of the lip and buccal mucosa. Laryngoscope 1989;99:6-9.
6. Robert EM, Diane S. Oral and Maxillofacial Pathology-A Rationale for Diagnosis and Treatment. Chicago: Quintessence Publishing Co, Inc.; 2003. p. 528-33.
7. Daniels JS, Ali I, Al Bakri IM, Sumangala B. Pleomorphic adenoma of the palate in children and adolescents: A report of 2 cases and review of the literature. J Oral Maxillofac Surg 2007;65:541-9.
8. Noghreyan A, Gatot A, Maor E, Fliss DM. Palatal pleomorphic adenoma in a child. J Laryngol Otol 1995;109:343-5.
9. Luna MA, Batsakis JG, el-Naggar AK. Salivary gland tumors in children. Ann Otol Rhinol Laryngol 1991;100:869-71.

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