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CASE REPORT

Pleomorphic Adenoma Localized in Buccal Mucosa: Report a Case

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Abstract

Objective

Pleomorphic adenoma is the most common salivary gland tumor with a benign, mixed character. Majority of pleomorphic adenomas originated from minor salivary glands seen in the hard palate. However, rarely it may originate from the other minor salivary glands in buccal mucosa and the tongue. In this case report, excision of the pleomorphic adenoma of the buccal minor salivary gland is presented.

Case

Clinical examination of a 55-year-old female patient who referred to our clinic with swelling in the right buccal region, showed a solid mass in the buccal mucosa and total excision of the mass was performed with a preliminary diagnosis of lipoma. Excisional biopsy revealed the diagnosis as pleomorphic adenoma.

Conclusion

Pleomorphic adenoma originated from the minor salivary glands cause confusions regarding diagnosis with other lesions. Therefore, reaching the definite diagnosis can only be possible by confirming the clinical and radiological examinations with histological examination.

Keywords: Lipoma, minor salivary gland, excision

Introduction

Salivary gland neoplasms are relatively rare and often affect the major glands[1]. Approximately two-thirds of salivary gland tumors that comprise less than 5% of the tumors occurring in the head and neck region, are pleomorphic adenomas (PA)[2]. PA is the most common salivary gland tumor which has benign mixed nature. Only 8% of PAs originate from minor salivary glands and are commonly seen in the hard palate[2]. Less frequently, PA may also originate from the minor salivary glands in the buccal mucosa tongue, lip, and extra-salivary tissues[2, 3]. The PAs of the minor salivary glands are usually cause painless, non-symptomatic submucosal mass approximately 2 to 6 cm in size[2, 4]. PAs are more common in women in the third and fifth decades[4-6]. The accepted treatment protocol of PA is surgical excision[2, 7]. The aim of the surgery is to remove the tumor completely with its capsule to minimize the risk of recurrence[3].

In this case report, a rare case of PA originating from the minor salivary glands of buccal mucosa, is presented.

Case Report

A 55-year-old female patient was admitted to our clinic with a complaint of swelling in the right buccal region. Clinical and radiological examinations revealed a non-invasive, solid mass in the right upper maxillary premolar region near the cheek. Following the clinical and radiological examinations, total excision of the mass was planned with a preliminary diagnosis of lipoma.

After administration of local anesthesia, a horizontal incision was made and the mass was reached by raising a half-thickness flap. Then the mass was removed with blunt dissection from the buccal mucosa (Figure 1). After primary closure was performed, the patient was prescribed antibiotics, analgesics and antimicrobial mouthwashes.

Excised mass was sent for histopathological examination (Figure 2). The histopathology report revealed the diagnosis as PA (Figure 3). One week after the operation, sutures were removed and a dressing was performed at the operation site. The healing was uneventful. No complication was observed at 4 months follow-up.

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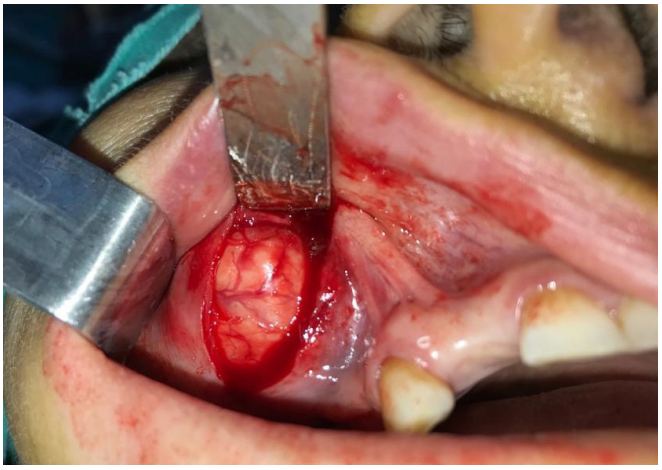

Figure 1: Intraoperative view of removing the mass with blunt dissection

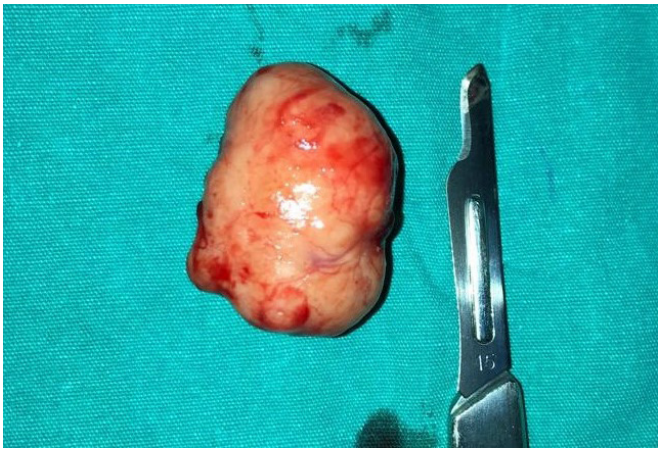

Figure 2: Excised specimen

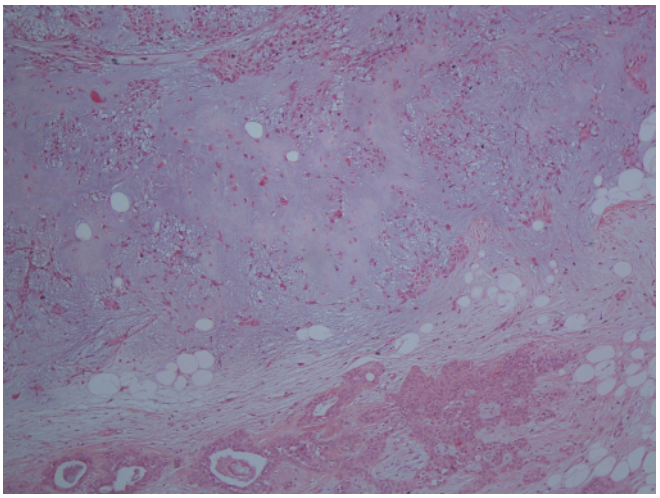

Figure 3: Histopathological view of PA

Discussion

PA is a benign, mixed salivary gland neoplasm originating mostly from the major salivary glands. 63% of PAs are seen in the parotid gland, 10% in the submandibular gland and 0.1% in the sublingual gland[3]. Minor salivary gland tumors are rare and constitute 9-23% of all salivary gland tumors[1]. PA is most commonly originating from the minor salivary glands of the palate however, it may also originate from the minor salivary glands in the areas such as lip, tongue, floor of the mouth, buccal mucosa, sinuses, epiglottis and trachea[3, 6, 7].

Nardone et al.8 presented a case of PA originating from minor salivary glands in the external ear canal, nose and throat. Unlike the major salivary gland PA, minor salivary gland PA is not encapsulated by connective tissue[2]. In contrast to what is generally reported, in our case PA was originated from the minor salivary glands of the buccal mucosa and was also encapsulated with connective tissue.

The clinical features of PA usually a gradually increasing painless swelling. Pain is not a common symptom, but local discomfort is the main problem for patients. Even though these lesions reach a very large size, they rarely develop ulcers on the surface of the lesion[2, 4]. Chaturvedi et al.7 reported a PA with an unusual size of 3 cm x 4 cm in the palatal region, which cause difficulties in chewing, swallowing and speech. Also, in this report ulceration and bleeding have been reported due to persistent friction on the mucosa on the swelling. In our case, only a painless swelling was present.

Malignant transformation of PA can be seen and called carcinoma ex pleomorphic adenoma[9]. Thus, during the excision of the PA, care must be taken not to disrupt the continuity of the capsule of PA. The rupture of the capsule and incomplete excision of microscopic pseudopod-like extensions may result in recurrence of PA[3, 5]. Spiro reported recurrence in 7% of and 6% of 1342 patients with benign parotid gland neoplasia and benign minor salivary gland tumors, respectively[4, 10]. The ideal treatment protocol of PA is total excision with safety margins[4, 7].

Conclusion

As a conclusion, PA can be found in the buccal mucosa and must be considered in the differential diagnosis of the lesions that affecting this area. In addition to clinical and radiological examination, histological examination is also required for definitive diagnosis.

References

1. Pires FR, Pringle GA, de Almeida OP, Chen SY. Intra-oral minor salivary gland tumors: a clinicopathological study of 546 cases. Oral Oncol 2007; 43: 463-470.
2. Khandekar S, Dive A, Munde P, Wankhede ND. Pleomorphic adenoma of the buccal salivary gland. J Oral Maxillofac Pathol 2015; 19: 111.
3. Lingam RK, Daghir AA, Nigar E, Abbas SA, Kumar M. Pleomorphic adenoma (benign mixed tumour) of the salivary glands: its diverse clinical, radiological, and histopathological presentation. Br J Oral Maxillofac Surg 2011; 49: 14-20.
4. Debnath SC, Saikia AK, Debnath A. Pleomorphic adenoma of the palate. J Maxillofac Oral Surg 2010; 9: 420-423.
5. Sharma N. Pleomorphic adenoma of the buccal salivary gland: magnetic resonance imaging findings with differential diagnoses. J Investig Clin Dent 2012; 3: 228-231.
6. Ramesh M, Krishnan R, Paul G. Intraoral minor salivary gland tumours: a retrospective study from a dental and maxillofacial surgery centre in salem, Tamil Nadu. J Maxillofac Oral Surg 2014; 13: 104-108.
7. Chaturvedi M, Jaidev A, Thaddanee R, Khilnani AK. Large Pleomorphic Adenoma of Hard Palate. Ann Maxillofac Surg 2018; 8: 124-126.
8. Nardone M, Ferrara G, Nappi O, Di Maria D, Villari G. [Pleomorphic adenoma in unusual anatomic sites: case reports and review of literature]. Acta Otorhinolaryngol Ital 2002; 22: 158-163.
9. Goyal P, Sehgal S, Ghosh S, Agrawal D, Singh S. Rare Carcinoma Ex-pleomorphic Adenoma of Buccal Mucosa: Case Report and Review of Literature. Rare Tumors 2016; 8: 6138.
10. Spiro RH. Salivary neoplasms: overview of a 35-year experience with 2,807 patients. Head Neck Surg 1986; 8: 177-184.