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Case Report

Mucoepidermoid carcinoma of palate- A rare case report and management

Kanchan Shah[1], Asma Fruitwala[1]*, Jayant Landge[1], Mahesh Pund[1], Amol Lahoti[1]

[1]*Dept. of Oral and Maxillofacial Surgery, Govt. Dental College and Hospital, Aurangabad, Maharashtra, India*

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ABSTRACT

Mucoepidermoid carcinoma is a rare salivary gland tumor affecting minor salivary gland. This case report discusses the clinical features, diagnosis and management and rehabilitation of patient of mucoepidermoid carcinoma of palate. A 32-year old female reported with the chief complain of painless swelling and ulceration on right side of hard palate since 6 months. Then proper clinical, radiological and histopathological investigations and analysis were done to come to diagnosis and based on the incisional biopsy report the diagnosis was confirmed to be mucoepidermoid carcinoma of intermediate grade. This case report depicts timely and accurate diagnosis and decision on treatment plan based on all investigation can not only lead to treatment but also rehabilitation of patient.

1. Introduction

Mucoepidermoid carcinoma is a rare salivary gland neoplasm.[1] It is commonly seen in major salivary gland and less common in minor salivary glands. However minor salivary gland if affected is seen commonly in palate.[2–4] It affected adults between fifth to sixth decade of life and is predominant in females.[5] Mucoepidermoid carcinoma is the most common among all malignant tumor of salivary gland.[6] MECs are divided into low-, intermediate-, and high-grade categories histologically.[7] Low grade tumours frequently take on a nesting pattern with numerous, clearly delineated squamous nests and a large number of clear cells. Less cystic, more prone to forming thick sheets of squamous cells, and frequently exhibiting a more pronounced intermediate cell population are all characteristics of intermediate-grade tumours. High-grade tumours have more atypia and tend to be solid in nature.[5]

2. Case Report

A 32-year old female visited the department with the chief complain of ulcer and swelling in the right posterior region of hard palate since 6 months. She had no relevant medical and family history. Then extraoral examination was done and no abnormalities were detected.

Intraoral examination revealed the ulcer on the right side of palate which was 1cm * 1cm and there was swelling surrounding it. On palpation the lesion was non tender and firm in consistency near the borders and soft in the center. The patient gave history of injury while eating 6 months back and the ulcer didn't heal since then.

All the blood investigations were done and it were within normal range. Cone beam computed tomography was done to show slight smooth bony indentation. Incisional biopsy was then done for diagnosis which came as intermediate grade mucoepidermoid carcinoma.

* *Corresponding author*.
E-mail address: asmafruitwala98@gmail.com (A. Fruitwala).

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Figure 1: Clinical photo of right side of palate

Figure 2: Incision marked and given

Figure 3: Excision done

Figure 4: Soft palate reconstruction with buccal fat pad

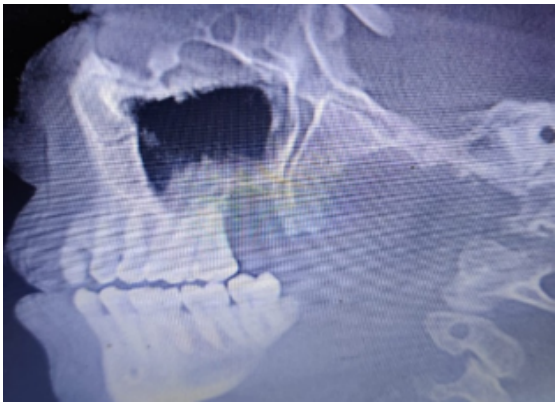

Figure 5: Pre-operative radiograph

Figure 6: 1 year follow up

Then treatment plan was made and wide surgical excision of lesion was carried under general anesthesia followed by bactigauze, chlorhexidine gauze dressing was placed and buccal fat pad reconstruction done for soft palateand covered with an acrylic plate. The patient was kept on regular follow up and healing was satisfactory.

3. Discussion

It is rare salivary gland tumor.[1] Most common malignant salivary gland neoplasm are located in parotid gland however few are in minor salivary glands. The parotid glands are where it most frequently occurs, with minor glands coming in second.[6]It makes up about 3% of head and neck tumours, and it tends to affect more women than men. Most cases of palatal MEC present clinically as firm, painless swellings that can resemble mucoceles or vascular lesions. Investigations and clinical results in the current case pointed to a surface lesion. The lesion's blue to red colour may indicate that it has vascular or salivary gland origins. Reactive and neoplastic lesions need to be considered in the differential diagnosis of a teenager with a compressible palatal tumour. Aside from pleomorphic adenoma, other small salivary gland neoplasms such benign and malignant mesenchymal tumours should also be taken into account. MEC and mucocele should be at the top of the list if there is a fluctuating light blue mass in an intraoral salivary gland bearing area.[2–5]

Reactive and neoplastic lesions need to be considered in the differential diagnosis of a teenager with a compressible palatal tumour. Aside from pleomorphic adenoma, other small salivary gland neoplasms such benign and malignant mesenchymal tumours should also be taken into account. MEC and mucocele should be at the top of the list if there is a fluctuating light blue mass in an intraoral salivary gland bearing area.[1,5]

MECs are rare in children and adolescents, but when a lesion resembles a mucocele—a fluctuant reactive lesion of the salivary glands most usually found in the lower lip and rarely in the palate—they must be taken into consideration. Considering that the MEC typically has a blue or red surface colour it should be differentiated from hemangioma by proper clinical and radiological examination.[4–6]

MECs are categorised histologically into low-, intermediate-, and high-grade categories according to clinical behaviour. A histological examination in the current case determined that the lesion was an intermediate-grade MEC.

Children and adolescents with low to intermediate-grade MECs arising from intraoral small salivary glands can be successfully treated with a wide local surgical excision that guarantees tumor-free surgical margins.[1] In this instance, the lesion was surgically removed in its entirety with no surgical margins. The tumour is dissected down to the periosteum if there is no indication of bone involvement, as in the current case. However, it may be required to remove a section of the involved bone if there is any sign of severe periosteal involvement or bone degradation. More extensive surgical procedures, including or not postoperative radiation and chemotherapy, are necessary for high-grade tumours. Additionally, it should be remembered that laser therapy, cryosurgery, and micro-marsupialization are not recommended for treating intraoral submucosal masses or nodules in children.[4–8]

The recurrence rate of low- to intermediate-grade MECs originating from intraoral minor salivary glands is extremely low (10%) and the survival rate is quite high (95–100%).[1,3] This is consistent with the widespread belief that MECs of low and intermediate grades have a passive clinical history and a low risk of metastasis. Although low and intermediate-grade MEC in this age range can recur many years after initial removal, they are also at risk of acquiring a secondary malignancy as a result of the treatment, thus close clinical follow-up should be for life.[4,7]

4. Source of Funding

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5. Conflict of Interest

There is no conflict of interest

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Author biography

Kanchan Shah, Professor and HOD

Asma Fruitwala, Post Graduate Student

Jayant Landge, Associate Professor

Mahesh Pund, Assistant Professor

Amol Lahoti, Post Graduate Student

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