

CASE REPORT

Mucoepidermoid Carcinoma of Buccal Mucosa- A Case Report

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ABSTRACT

Buccal mucosal swellings are more often noticed in day to day practice. Routinely they are associated with buccal space, buccal fat pad, buccinator muscle and minor/major salivary glands etc. Certain common oral swelling presenting in this region leads us to a prompting concern about the tumors. A 40 year old female patient reported with a chief complaint of swelling in left cheek region since one years. A diffuse swelling approximately 2.5 × 1 cm in the buccal mucosa was noticed. With this a working diagnosis of mucocele of minor salivary gland was made. Lesion was excised under local anesthesia. The histopathological picture of the lesion was slow grade mucoepidermoid carcinoma of minor salivary gland which was unexpected and therefore probably the consideration of malignancy in the differential diagnosis even though the clinical presentation is not in favor is a take home message.

Key words: Mucoepidermoid Carcinoma, mucosal swellings

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INTRODUCTION

Mucoepidermoid carcinoma (MEC) is most common malignant salivary gland tumor, first described as a separate pathologic entity by Stewart *et al.* in 1945. As its name suggests, MEC is composed of a mixture of cells, including mucus-producing, epidermoid or squamous and intermediate types.¹ MEC appears as asymptomatic swellings in minor salivary glands, being the second most common site of occurrence after the parotid gland, it can be located on palate, in retromolar area, floor of mouth, buccal mucosa, lips, and tongue.²⁻⁵ It manifests most often during the second to seventh decades of life and exhibits a slight female predilection.⁶ Histopathologically, it is classified into three grades, low, intermediate and high, with low grade (48%) being more common than high grade (38.7%) and intermediate grade (13.3%) least common.⁷ These three histopathological grades are based on degree of cytological atypia, amount of cyst formation, and relative numbers of mucous, epidermoid and intermediate cells.⁸ The standard approach for the treatment of MEC is total excision of the tumor.⁹ This report describes an additional case of a low-

grade MEC affecting the buccal mucosa of a 40year-old female.

CASE REPORT

A 40 year old female patient reported on June 2015 to our department. She reported with the chief complaint of pain in the lower left back region of the jaw since 4 days and a painless swelling in the left side of the jaw since 1 year. One year back, she noticed a small swelling on the left side of buccal mucosa which has gradually increased to its present size [Figure 1]. She was apparently asymptomatic 4 days before she reported to our department. She gave a history of tooth extraction (lower left first molar extracted 2 year back). The pain was dull and continuous in nature. The clinical examination revealed a well defined solitary round sessile swelling present in left buccal mucosa seen at the occlusal level plane extending from 36 to 38 region 2.5 cm × 1 cm in its greatest dimension buccally. The color of the lesion was pale pink. The surrounding mucosa appeared normal. The swelling was tender, roughly spherical in shape, freely mobile, firm

in consistency, and non fixed to underlying structures. No history of pus discharge, bleeding seen from the lesion.

Since the clinical presentation appeared more towards benign entity, wide local surgical excision was performed under local anesthesia through peroral approach. Excised specimen send for histopathological examination [Figure 2]. The histopathological examination revealed squamous and glandular components along with inflammatory infiltrate and mucin pool suggestive of a low grade Mucoepidermoid carcinoma [Figure 3].



Figure 1: Intra-oral photograph showing swelling on the left side of buccal mucosa



Figure 2: Excised specimen

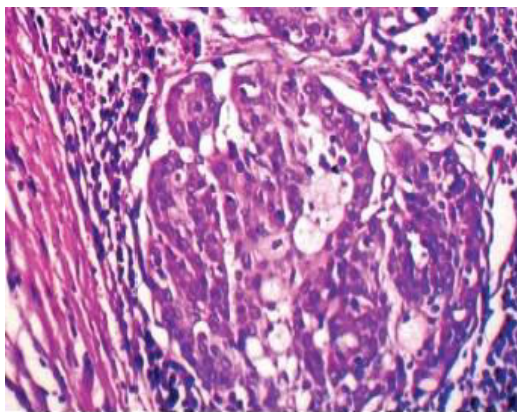


Figure 3: Histopathological photograph



Figure 4: Postoperative photograph

No post operative chemotherapy or radiotherapy was given. Patient was follow up every 3 month to till date for any recurrence or symptom. Patient is symptom free after 4 year and no recurrence occurs on operated site. [Figure 4]

DISCUSSION

Salivary gland tumours account for less than 5% of head and neck neoplasm.¹⁰ Mucoepidermoid carcinoma is the most common salivary gland malignancy and is histologically comprised of a mixture of mucus cells, intermediate cells and squamoid or epidermoid cells. This tumor may also demonstrate clear cell, oncocytic or columnar cells. There is arguably no other salivary gland tumor in which grading is as important to prognosis and therapy. The reported overall 5 year survival for MEC ranges from 92 to 100% for low grade tumors, 62–92% for intermediate grade tumors, and 0–43% for high grade tumors.¹¹

Stewart et al¹² introduced the term "mucoepidermoid" to emphasize the two main histologic features of these tumors—a mixed pattern of epidermoid and mucus-producing cells. In addition, clear cells and intermediate cells are common. There is a variation in the cellular pattern of individual mucoepidermoid tumors. Low-grade mucoepidermoid tumors are defined by a differentiation directed more toward the production of mucous cells than of squamous cells. High-grade mucoepidermoid carcinoma results when squamous cells predominate. Mucoepidermoid tumors are believed to arise from the excretory duct reserve cells.¹³ this cell differentiates into the squamous, columnar, and mucous cells of the excretory duct.

Mucoepidermoid tumors make up 10% of all intraoral salivary gland tumors.¹⁴ As a typical intraoral presentation this malignancy has a painless and persistent enlargement, which lasts for about a year. Paresthesia, pain, and difficulty with swallowing are noted frequently when major salivary glands and tongue are involved. Intraoral lesions are observable as a localized fluctuant nodule with a bluish or reddish-purple, smooth, mucosal surface. Low-grade tumors are soft and compressible whereas, high-grade lesions may be quite firm and accompanied with

ulceration, resorption of bone, and numbness of adjacent teeth.¹⁵ In our case painless swelling was present since one year and appears as fluctuant nodular swelling and pale pink in color.

Mucoepidermoid carcinoma displays a widely diverse biologic behaviour and clinical manifestation, which will correlate with tumour stage and grade. High grade MEC is highly aggressive tumour, where as low-grade shows more benign nature even though metastases have also been described in low grade MEC. Mode of metastasis may be lymphatic (cervical lymph node) and haematogenous and most common site for the metastasis is lungs, bones are involved rarely. Others include the liver, brain, skin, ovary/ peritoneum, including other sites.¹⁶

MECs are best treated by surgery, the extent of which depends on location, size and histopathological grading. Local resection is the treatment option for less aggressive low grade tumours, while high-grade tumours require wide resection with involvement of adjacent structures.¹⁷ Treatment for MEC in minor salivary glands is primarily surgical. We also did complete surgical removal of the lesion under local anesthesia through per oral route. After more than 3 years of follow-up there have been no complications or lesion recurrence.

Overall survival rate has been linked to histocytologic grade with 95%–100% in low-grade and 25%–43% in high-grade tumors.¹⁸ Spiro et al. classified mucoepidermoid carcinoma as low, intermediate or high-grade, with 5-year survival rates of 92%, 83% and 24%, respectively.¹⁹

CONCLUSIONS

MECs are rare tumours of the salivary glands. No specific guidelines have evolved for the management of these tumours, but surgical excision is mandatory along with a long-term follow-up. In particular, low and intermediate grade MECs of salivary glands tend to have a favourable outcome compared with high-grade MECs that have a greater tendency to recur and metastasize. The clinical stage continues to be both a prognostic factor for overall survival and a predictive factor of distant metastases. Therefore, both correct clinical staging and immunohistochemical findings associated with careful follow-up are important factors in minor salivary gland malignancies, especially high-grade MECs, for appropriate

management of these tumours. In our case, surgical excision of the tumour was done transorally. This approach is safe and can radically remove limited oropharyngeal tumours of the tongue base with good functional outcomes compared with transmandibular and/or transcervical approaches

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