

Mucoepidermoid carcinoma of the soft palate salivary gland

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ABSTRACT

Mucoepidermoid carcinoma is a malignant epithelial tumour of glandular tissue, usually of the major salivary glands. However it can present in the minor salivary glands, especially in the soft palate. We report the case of a 72-year-old Malay female after presentation with sore throat, fever and odynophagia, was diagnosed with mucoepidermoid carcinoma of the soft palate.

Keywords: Mucoepidermoid tumour, salivary gland neoplasms, minor salivary gland

INTRODUCTION

Primary epithelial salivary gland tumour are uncommon and can be benign or malignant (Table 1). Salivary gland neoplasm accounts for only up to six percent of all the head and neck tumours.¹ The size of the salivary gland is indirectly proportional to the incidence of malignancy of that gland where the smaller glands present increased risk of malignancy.² Minor gland neoplasms affecting the soft palate account for approximately two percent of all head and neck mucosal malignancies. One study reported that 52.3% of tumours of minor salivary glands were malignant.³

Mucoepidermoid carcinoma is a type

of neoplasm that is primarily found in the salivary glands (major and minor) but can also present in other glands such as the tear glands, mammary glands and thyroid. Fresole *et al.* reported that mucoepidermoid carcinoma of the salivary gland is most commonly found in the palate, usually in the sixth decade of life with equal distribution between the sexes.¹ Histologically, the neoplasms contains squamous and mucin producing cells. The greater the epidermoid element, the more malignant is the behaviour of the tumour. We report a case of mucoepidermoid carcinoma of the soft palate which mimics other pathology of the oral cavity/pharynx in a 72-year-old female who presented with fever, sore throat and odynophagia.

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CASE REPORT

A 72-year-old Malay woman with no known

Table: Common primary epithelial tumours of the salivary glands.

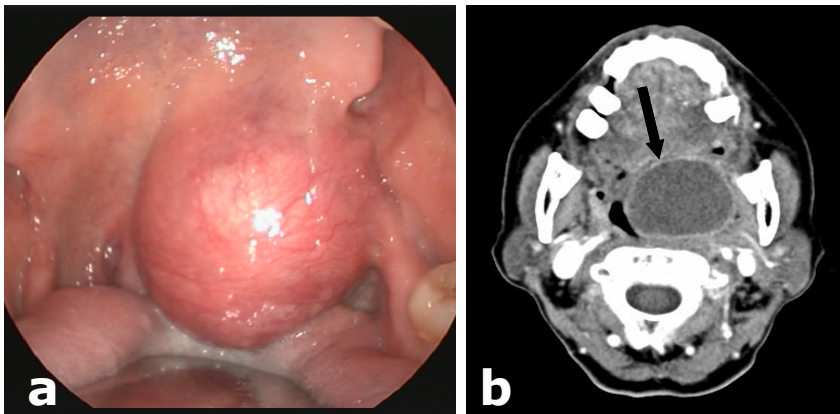
| Category | Types |
|--------------------------|--|
| Benign lesions | Pleomorphic adenoma (mixed tumour) Warthin's tumour (papillary cystadenoma lymphomatosum) Oncocytoma Monomorphic |
| Malignant lesions | Mucoepidermoid carcinoma Adenoid cystic carcinoma Acinic cell carcinoma Carcinoma Ex-pleomorphic adenoma Squamous cell carcinoma Adenocarcinoma |

past medical history presented with sore throat of one week duration. This was associated with fever, pain, difficulty in swallowing and voice change. She did not reveal any history of alcohol consumption, smoking or tobacco/betel nut chewing.

Examination revealed a medium built female, with muffled voice and no signs of respiratory distress. Throat examination revealed a marked left peritonsillar swelling (4cm x 3cm) extending from the level of the soft palate superiorly to the level of the left tonsillar bed inferiorly (Figure 1a). There was also medialisation of the left lateral pharyngeal wall, obstruction of the oropharyngeal

Isthmus with the uvula displaced to the right. There was no palpable cervical lymphadenopathy. A computed tomography (CT) scan of the neck revealed a cystic swelling resembling a post inflammatory tonsillar retention cyst (Figure 1b).

The patient underwent surgical excision of the mass through a trans-oral approach without any complications. Histopathological examination showed an encapsulated tumour with diffuse areas of central necrosis. Malignant cells composed of a mixture of squamous cells with some keratinisation, glandular cells and cells forming micro-cystic patterns were observed. There was no inva-



Figs. 1: a) A large peritonsillar mass with obliteration of oropharyngeal isthmus, and b) an axial computed tomography scan image showing a well-defined cystic lesion (arrow) located at left tonsillar fossa, compressing the oropharynx.

sion of the capsule. The diagnosis was consistent with a mucoepidermoid carcinoma of intermediate grade.

The patient later received a course of adjuvant radiotherapy and had remained well on follow up without evidence of recurrence or lymphatic metastasis.

DISCUSSION

Mucoepidermoid carcinoma of the salivary gland is one of the differential diagnoses. It is most commonly found in the major salivary glands (parotid) but may also present in the minor salivary glands. Mucoepidermoid carcinoma incidence is about 16% of minor salivary gland tumours, second to adenoid cystic carcinoma.⁵

Histologically, it is differentiated according to four cell types: mucin-producing, squamous, intermediate and clear cells.⁶ Based on histological findings, a point system can be utilised to grade tumour: intracystic component >20% (2 points), neural invasion (2 points), necrosis (3 points), four or more mitoses per 10 HPF (3 points) and anaplasia (4 points).⁷⁻⁹ The total score allows differentiation into low grade (0-4), intermediate (5-6) and high grade (more than 7).¹⁰

For our patient, histology revealed an encapsulated tumour with diffuse areas of central necrosis (3 points). The malignant cells were composed of a mixture of squamous cells with some keratinisation, and as well as glandular cells where some formed microcystic patterns. Mitosis was occasionally seen (3 points) and there was no capsular invasion. The total score of six, resulted in the tumour being graded as an intermediate mu-

coepidermoid carcinoma.

Management of mucoepidermoid carcinoma includes surgical resection with or without adjuvant radiotherapy. Since complete radical resection of mucoepidermoid carcinomas of minor salivary gland is associated with functional deterioration, conservative surgery combined with radiotherapy is recommended because this does not result in deterioration of local control rates even with positive surgical margin.¹¹

The overall prognosis of mucoepidermoid carcinoma depends on the grade of the tumour. The five years survival rate for those classed as low-grade is 98%, but this decreases to 56% for high-grade tumour.¹² Other prognostic factors include age, gender, location and histological findings. Favourable factors include younger age, female gender, major glands origin, and absence of extraglandular extension, vascular invasion, mitotic rate and necrosis.

In conclusion, mucoepidermoid carcinoma generally usually progressed slowly but this is dependent on the grade of the tumour and other prognostic factors. Correlation between radiological and pathological findings are necessary as this determines the prognosis.

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'S' for Seagulls

Picture taken at Coff harbour, Gold Coast, Queensland Australia.

(Picture courtesy of Vui Shin Chong)
