

CASE REPORT

Mucoepidermoid thyroid carcinoma combined with palate squamous cell carcinoma

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Abstract

Mucoepidermoid carcinoma is the most common malignant salivary gland tumor in the oral cavity. Primary thyroid involvement is rare, with few cases in the literature. The clinical case describes a patient with squamous cell carcinoma in the hard palate submitted to maxillectomy and lymphadenectomy. Invasion of the thyroid was observed during the surgery, so it was complemented with thyroidectomy. The histopathology resulted in squamous cell carcinoma of the palate with maxillary invasion, papillary carcinoma of the thyroid in the left lobe and mucoepidermoid carcinoma of the thyroid in the right lobe. Mucoepidermoid carcinoma has been found in association with other glandular epithelia of the head and neck.

Keywords: Mucoepidermoid Tumor; thyroid; squamous cell.

Introduction

Mucoepidermoid carcinomas (MEC) are among the most common malignant tumors of the salivary glands, and it is believed that their origin is in the excretory ducts¹. Their etiology is unknown, but may be associated with genetic factors, smoking or exposure to radiation².

Primary thyroid mucoepidermoid carcinoma is a very rare malignant neoplasm, with only a few cases reported in the literature, and varies in its presentation, treatment and clinical evolution³.

It is characterized by 3 types of cells (secretory, epidermoid and intermediary) organized in epithelial islands, sheets and cystic formations⁴. It can be classified in 3 histological groups: well differentiated or low-grade, moderately differentiated or intermediary-degree and poorly differentiated or highly malignant.

The mucoepidermoid carcinoma of the thyroid appears as a homogeneous neoplasm with ill-defined limits, unencapsulated and of several sizes.

Its initial clinical appearance is that of a euthyroid patient with nodular goiter, with no predilection regarding lobes, isthmus impairment being very rare. There may be lymph node compromise at the diagnosis.

Females are more often affected and the average age of patients is 40, with cases reported in the literature going between 10 and 83 years.

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The prognosis is favorable in most cases, however, association with papillary thyroid carcinoma may contribute to greater tumor aggressiveness and a worse prognosis⁵.

Case report

This is a 63-year old female patient, with a history of smoking. Five months before admission she complained of odynophagia and dysphagia, and an ulcerated lesion appeared on her hard palate, associated with right-sided cervical lymphadenopathy. The patient was hospitalized for a biopsy in March 2014, and the result was a moderately-differentiated squamous cell carcinoma. A cervical computed tomography showed the presence of a right-sided lymphadenopathy (level IIa), with necrotic center (Figure 1). A right-side infrastructure maxillectomy associated with radical right-side cervical lymphadenectomy type II (accessory nerve infiltrated by lymph node enlargement) was then carried out. During surgery a lymph node mass which invaded the pre-thyroid and thyroid musculature was identified, so a total thyroidectomy was also performed. On examination of the tracheostomy orifice the first postoperative day, a lesion in the region of the trachea became evident, and a bronchoscopy was carried out. The exam showed the presence of numerous vegetative lesions, hardened, throughout the trachea, including the carina, with only the posterior wall being preserved (Figure 2). A biopsy was performed, revealing a focal immature metaplasia in a distal tracheal fragment, with no evidence of neoplasm, confirmed by a microscope slide review. Histopathological examination of the surgical specimen revealed a palatal epidermoid carcinoma with maxillary invasion, papillary thyroid carcinoma in the left lobe and mucoepidermoid thyroid carcinoma in the right lobe, the latter associated with a lymph node metastasis, confirmed by immunohistochemistry. In the 30th postoperative day, nodules appeared throughout the patient's body, and the option was to do the follow-up with clinical oncology (Figure 3). The patient underwent chemotherapy with

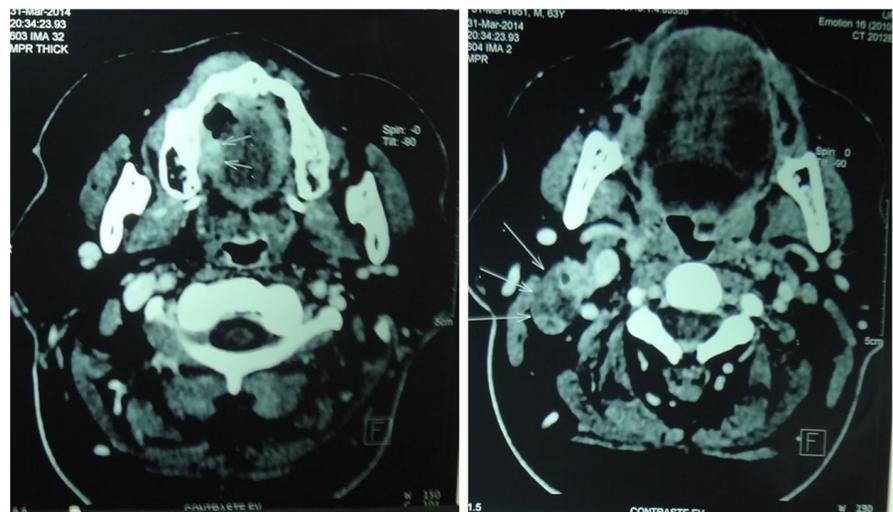


Figure 1. **A** - Hard palate lesion determining bone reaction with extension to soft tissues adjacent to nasopharynx; **B** - Lymphnodes with necrotic center in right cervical chain level IIa.

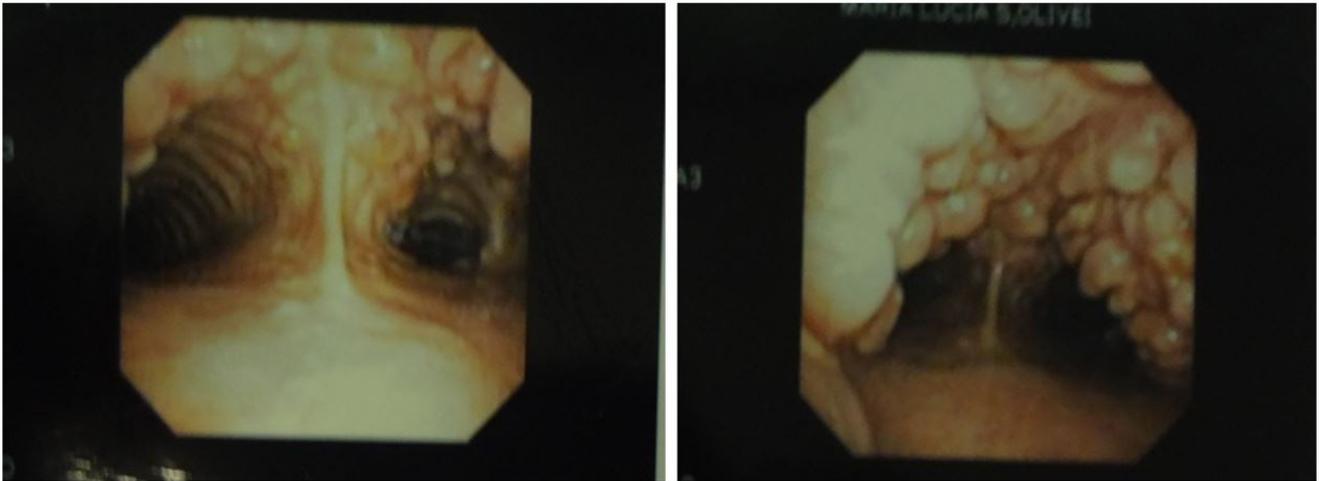


Figure 2. Multiple vegetative lesions involving the main trachea and bronchi.



Figure 3. Subcutaneous nodules.

carboplatin and taxol, which resulted in reduction of pre-existing injuries, but new lesions appeared in the abdominal and thoracic walls. The patient had a weak response to the chemotherapeutic treatment and, after several hospitalizations, suffered a general condition decline and frequent episodes of dyspnea, dying 6 months after the diagnosis.

Discussion

Mucoepidermoid carcinomas generally affect the minor and major salivary glands. However, they have also been found in association with other glandular epithelia in the region of the head and neck, such as in the lining of the maxillary sinuses, nasopharynx, oropharynx, vocal folds, trachea, lacrimal glands and thyroid⁴.

They are rare as primary tumors of the thyroid, and are generally characterized by indolent development³. Mucoepidermoid carcinomas are histologically classified in 3 grades of malignancy (low, intermediary and high), and this subdivision has been useful in establishing the therapeutics and for its correlation with the prognosis of the tumors.

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Mucoepidermoid carcinomas of the thyroid generally occur in euthyroid populations with or without nodular goiter. There is a preferential relation of 2:1 for females, and the mean age of impairment is 40 (average of 46 years). The size of the tumor varies from under 1 cm to 10cm⁵. It may originate local metastases and, more rarely, distant metastasis.

Until 2015 only 47 cases were reported in the literature, in the age bracket between 10 and 83 years of age. This carcinoma is histologically characterized by the presence of squamous cells producing mucin. Its biological behavior is similar to that of the papillary carcinoma and the simultaneous association of these 2 carcinomas has also been described³.

The treatment of choice is surgery with wide local resection, associated or not with cervical lymphadenectomy, and eventually with radiotherapy in the postoperative period. The resection of adjacent structures is recommended when there is any impairment diagnosed previously or during surgery itself. Cervical lymphadenectomy is recommended when there is clinical evidence of regional metastasis, advanced clinical staging or high degree of histological malignancy.

The decision to complement treatment with chemotherapy depends on the presence of distant unresectable metastasis and also on a high-grade disease behavior³.

The rarity of this kind of primary thyroid neoplasm, with few studies and cases published in the literature, makes its origin and biological behavior uncertain, influencing the establishment of a therapeutical programme. The importance of this case derives not only from the rarity of this type of neoplasm but also from its evolution, since the mucoepidermoid carcinoma is considered a neoplasm with less aggressive biological behavior. Its association with papillary carcinoma of the thyroid, however, can contribute to greater aggressiveness and worse prognosis.

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