

Mucoepidermoid carcinoma of the esophagus (Case report)

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Abstract

Introduction: The authors reported a case of mucoepidermoid carcinoma of esophagus, which is a rare primary carcinoma of the esophagus, characterized by a diffuse mixture of squamous and mucin-secreting glandular carcinoma cells.

Case reports: The patient was a 54-year-old man with a five-month history of dysphagia and endoscopic biopsy diagnosis of scc. The patient underwent a curative esophagectomy with a regional lymph node dissection. Histopathologic and histochemical study of specimen showed mucoepidermoid carcinoma of the esophagus.

Keywords: Mucoepidermoid carcinoma, Esophageal carcinoma, Histochemical staining.

Introduction

Mucoepidermoid carcinoma (MEC) of the esophagus is an uncommon neoplasm characterized by a diffuse mixture of squamous and mucin-secreting glandular carcinoma cells. The incidence of MEC of the esophagus is difficult to estimate because some patients are probably undiagnosed or misdiagnosed. We describe here in a patient with diagnosis of MEC misclassified as squamous cell carcinoma of the esophagus on endoscopic biopsy specimen.

Case reports

A 54-year-old Iranian male farmer, with a five-month history of dysphagia, and endoscopic biopsy diagnosis of scc, whom underwent a curative esophagectomy with a regional lymph node dissection.

Other clinical parameters were normal. Esophagectomy specimen was submitted to the pathology laboratory. The fixed esophagus and proximal stomach was 9 cm long, and between 3 and 4 cm in circumference on section.

There was a ulceroinfiltrative carcinomatous lesion in the lower esophagus, 2.5cm long, creamy, with hard consistency. The tumor extended to the whole thickness of esophagus.

There were 8 lymph nodes in periesophageal tissues. The sections show moderately differentiated squamous cell carcinoma cells with occasional keratin production. Among squamous cell islands, there were glands or mucus secreting cells (Figurer 1,2).

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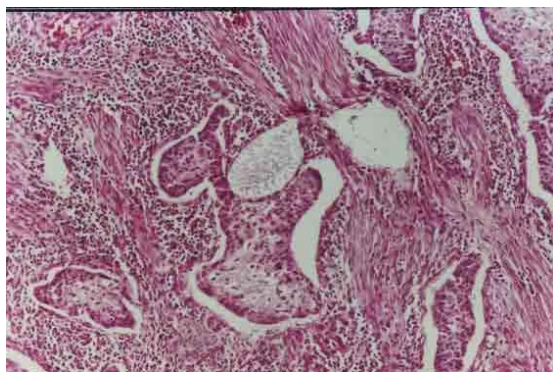


Fig 1: Malignant squamous cells islands, H&E staining, X100

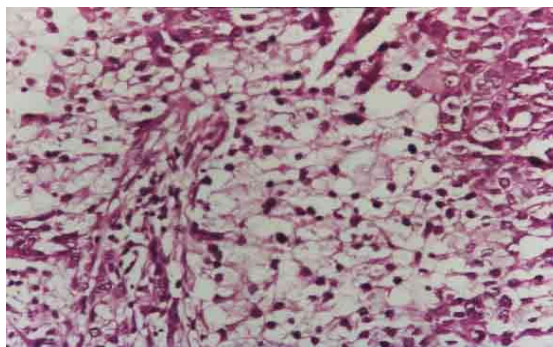


Fig 2: Squamous and clear cells, H&E staining, X250

These mucinous cells were positive for PAS and mucicarmine histochemical staining (Fig3,4). The final diagnosis was mucoepidermoid carcinoma of the esophagus. The patient referred to the oncology clinic for other treatment and follow up.

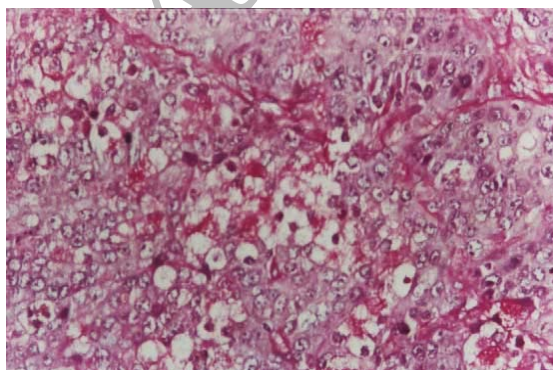


Fig 3: positive PAS staining in clear cells, PAS staining X250

Discussion

Doge (1) first described a mucoepidermoid carcinoma of the esophagus in 1961, and this tumor type is now recognized in this region. The disease is uncommon, although increasing numbers of cases have been reported in the medical literature (2-5). Mixed squamous and glandular differentiation is noted in some esophageal carcinomas. Usually the mixture is morphologically and diagnostically significant. A squamous cell carcinoma may contain a negligible glandular or mucus-secreting element or conversely, an adenocarcinoma can incorporate small bland squamous foci.

Adenosquamous carcinomas are rare aggressive neoplasms in which both malignant components coexist in more equal proportions. Mucoepidermoid carcinoma is also composed of both squamous and glandular elements, but display a more intimate admixture (5).

An origin from submucosal glands is often suggested. These tumors have genetically demonstrated extensive local invasion and metastasizes at the time of diagnosis (5).

Our case also penetrated full thickness of the esophageal wall and metastasized to 8 lymph nodes. Mafune et al (3), using histochemical methods, identified four (3.1%) of 135 resected primary esophageal cancers as mucoepidermoid carcinomas. Because of intraepithelial spread of the tumor and the close relationship between foci of invading carcinoma and regions of dysplastic epithelium, they suggested that esophageal MEC may originate in the squamous epithelium. Koide et al (4), reported co-occurrence of mucoepidermoid carcinoma and squamous cell carcinoma of the esophagus. They found carcinoembryonic

antigen at high levels in the blood serum before surgery and in the signet ring cells of the MEC. They expected that the clinical outcome of patients treated for esophageal MEC would improve in the future.

Zhonghua's study (5) was a retrospective study of 1,674 patients with esophageal cancers, only one of them was mucoepidermoid carcinoma. He studied clinicopathologic variables of primary uncommon malignant tumors of the esophagus. Lam et al (6), studied the clinicopathologic features of 11 cases of primary esophageal squamous cell carcinomas with mucin secreting component (eight mucoepidermoid and three adenosquamous carcinomas). The incidence was 2.2% of all resected primary esophageal tumors. The mean age was 64 years and the male to female ratio was 4.5:1. Many (64%) of these tumors were located in the middle third of esophagus. Hagiwara et al studied the biological behaviour of eight cases of mucoepidermoid carcinoma of esophagus and compared with 51 cases of esophageal SCC (7).

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خلاصه

گزارش یک مورد کارسینوم موکوپیدرموئید مری

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مقدمه: نویسندگان یک مورد کارسینوم موکوپای در موئید مری را گزارش کرده اند که کانسر اولیه و نادر مری می باشد که ترکیبی از سلول های کارسینومی سنگفرشی و غددی موسین تراوا در سراسر تومور می باشد.

معرفی بیمار: بیمار آقای ۵۴ ساله با سابقه ۵ ماهه دیسفاژی بود که بیوپسی اندوسکوپییک تشخیص کارسینوم سلول سنگفرشی داده شده بود. بیمار تحت ازوفازکتومی درمانی با برداشت غدد لنفاوی ناحیه ای قرار گرفت. مطالعات پاتولوژی و هیستوشیمی نمونه، تشخیص کارسینوم موکوپیدرموئید مری را اثبات کرد.

واژه های کلیدی: موکوپیدرموئید، کارسینوم مری، رنگ آمیزی هیستوشیمی