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Case Report

A case of mucoepidermoid carcinoma located in the left forearm of a middle-aged pregnant woman

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Abstract: In this article, we described a mucoepidermoid carcinoma (MEC) located in the left forearm of a 39-year-old pregnant woman. Here, the patient had a superficial tip size apophysis nearly 3 years, which begin to sustained growth after pregnant in 2012, and stopped growth after childbirth. MEC is a rare malignant tumor. Previously reports showed it mainly arise from the salivary, bronchial, thyroid, breast, lacrimal gland and conjunctiva. Here, we reported a case of MEC arising from the forearm gland for the first time. Histological finding showed a cystic and solid tumor in fibrous tissue below the squamous epithelium, and some columnar or cuboidal mucous cells covering on the epidermal cells or mixed with epidermal cells included in the tumor tissues. Also, Focal hyperplasia epidermal cells with round or oval nucleus in center were distributed in small pieces but no keratosis. The tumor tissues were immunopositive for CEA, P63, ki-67 (10%), CK7 and CK5/6, and immunonegative for CK20 and GCDFP-15. This case is a low-grade MEC and the patient's postoperative recovery is smooth.

Keywords: Mucoepidermoid carcinoma, forearm, immunohistochemistry

Introduction

Mucoepidermoid carcinoma (MEC) is a rare malignant tumor, and its biological behavior relates to glands [1]. Previously reports showed MEC mainly arise from the salivary, bronchial, thyroid, breast, lacrimal gland and conjunctiva [1-4]. In this case, we first showed MEC also can arise from forearm gland. Clinicopathological features, prognosis and therapeutic strategies for MEC are related to histological grading and accuracy of existing literature. Here, we reported a low-grade MEC located in the left forearm of a 39-year-old pregnant woman, and the patient's postoperative recovery is smooth.

Case report

A 39-year-old pregnant woman had a superficial tip size apophysis nearly 3 years, which begin sustained growth after pregnant in 2012, and stopped growth after childbirth. She was hospitalized with intermittent pruritus (episodes 1-2 times per day) of left forearm at Taiping People's Hospital of Dongguan, China, in August 22, 2013. Specialist examination showed a small oval mass in the left forearm, no other abnormalities.

Histopathological findings

A gray or gray mixed with red skin mass measured 9 mm × 8 mm × 6 mm in volume, and cut solid also showed gray or gray mixed with red (**Figure 1A**). The Tumor tissues were stained with hematoxylin and eosin. Microscopic observation showed a cystic and solid tumor in fibrous tissue below the squamous epithelium (**Figure 1B**). Lots of epidermal cells arranged in lumps or small irregularly pieces and some columnar or cuboidal mucous cells covering on the epidermal cells or mixed with epidermal cells included in the tumor tissues (**Figure 1C**). Focal hyperplasia epidermal cells with round or oval nucleus in center were distributed in small pieces but no keratosis. No excessive or bad differ-

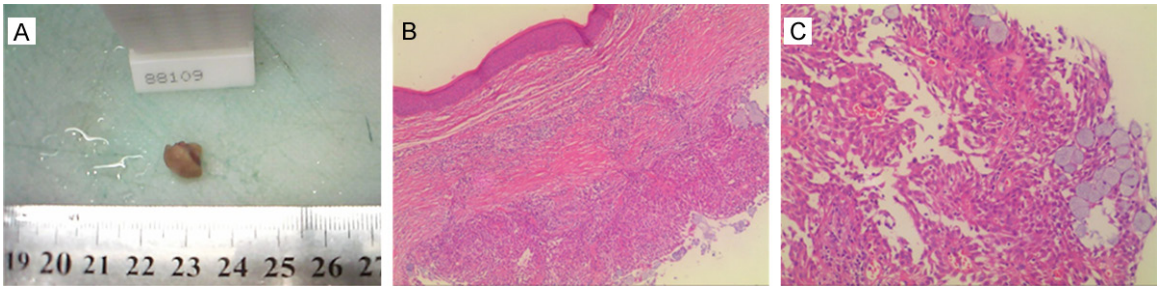

Figure 1. The MEC tissues were stained with hematoxylin and eosin. A: A gray or mixed with red skin mass from patient after surgical operation. B: A cystic and solid tumor in fibrous tissue below the squamous epithelium (40×). C: Epidermal cells and some columnar or cuboidal mucous cells covering on the epidermal cells or mixed with epidermal cells included in the tumor tissues (100 ×).

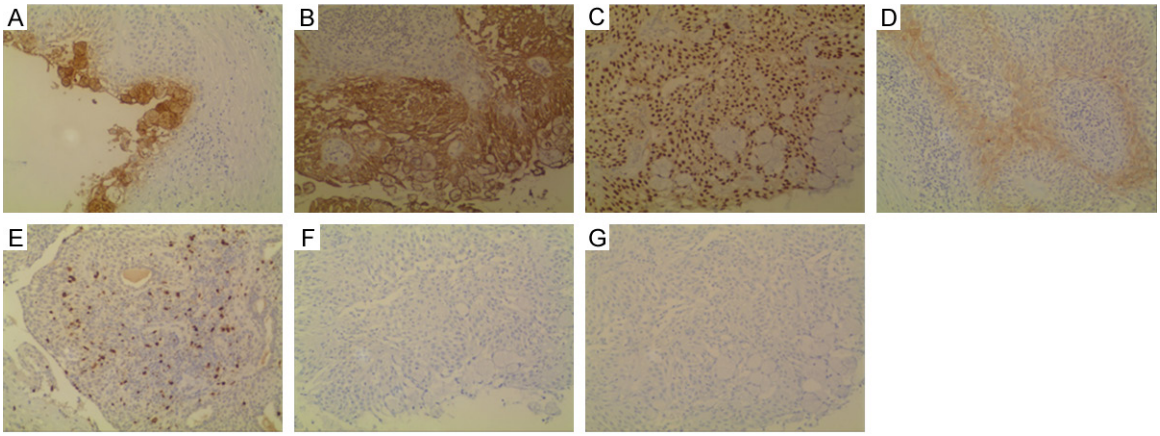

Figure 2. MEC tissues were stained with immunohistochemistry. The tissues were immunopositive for CEA (A), CK7 (B), P63 (C), CK56 (D), Ki-67 (E), GCDFP-15 (F) and CK20 (G) in MEC tissues (100 ×).

entiation cells were observed in tumor tissues, also those cells lack of cell atypia and mitosis. Around tumor tissue cells, varying amounts of inflammatory cells infiltration were clearly visible.

Immunohistochemical findings

Tumor tissues were immunopositive for CEA (+), P63 (+++), ki-67 (10%+), CK7 (+++) and CK5/6 (+), and immunonegative for CK20 (-) and GCDFP-15 (-) (**Figure 2**). According to histopathological and immunohistochemical findings, this patient was diagnosed as a case of MEC located in the left forearm.

Discussion

MEC is a malignant gland tumor, and Mostly of MEC arises from the salivary gland [1]. In this case, we first reported a MEC arising from the forearm gland. Histological finding showed some columnar or cuboidal mucous cells and Focal hyperplasia epidermal cells in tumor tissues, and the tissues were immunopositive for CEA, P63, ki-67 (10%), CK7 and CK5/6, and immunonegative for CK20 and GCDFP-15. So, this patient was diagnosed as a case of MEC. According to quantitative classification system for histological grading and the new world health organization classification, this case was defined as low grade tumor [2, 3]. Patients with high grade tumors should be treated by radical surgery with lymph node sampling and dissection, and patients with low grade tumors could be cured by complete resection and usually signifies potentially curable disease [5].

In this case, a gray or gray mixed with red skin mass measured 9 mm × 8 mm × 6 mm in volume were removed by surgical operation. Interestingly, the superficial tip size apophysis discovered 3 years ago of this case was beginning to sustained growth after pregnant in

2012, and stopped growth after childbirth, suggesting hormonal factors may have an impact to the biological behavior of tumor. Hormonal factors expression in MEC is controversial [6]. Especially, only a few cases supported a role for hormonal factors (e.g. ER) in salivary gland MEC [5]. In this case, we also found an immunopositive for ER and supported the role of ER in MEC.

MEC mostly occurs in young women with a painless mass [1]. Generally, the treatment of MEC has a longer course and easy to preoperative diagnosis as mixed tumor [1-3]. Patients with MEC had a 5 year survival of 80% and a 10 year survival of 50% [7]. In here, the patient was diagnosed as low grade MEC and operated by complete resection. The patient's postoperative recovery was smooth and she was discharged after 8 days. And regular following of patient is essential.

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Disclosure of conflict of interest

None.

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