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Case Report

Primary non-gestational choriocarcinoma of the uterine cervix: A case report

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Abstract

Background. Primary non-gestational choriocarcinoma of the female genital tract has been described in the ovaries and is very unusual in other genital sites.

Case. Primary non-gestational uterine cervical choriocarcinoma was diagnosed in a patient, 32, single, without previous sexual contact nor antecedent pregnancy, admitted to the hospital with irregular vaginal hemorrhaging. Pelvic examination realized under anesthetic revealed a tumor mass occupying the uterine cervix. Metastases investigation was realized and the patient was accepted as FIGO IV: risk factor of 13. She was submitted to intensive chemotherapy and hysterectomy, showing general recovery, but died from drug-resistant disease 12 months later. Histological, immunohistochemical, and molecular genetics studies confirmed non-gestational choriocarcinoma.

Conclusion. Primary non-gestational uterine cervical choriocarcinoma may arise from germ cell tumor or epithelial tissue.

Keywords: Non-gestational choriocarcinoma; Uterine cervix; Chemotherapy

Introduction

Choriocarcinoma that affects the female genital tract is categorized as either gestational or non-gestational. Gestational choriocarcinoma is the result of a pregnancy and is exemplified by its location in the uterine corpus. Primary extra-uterine choriocarcinoma is very rare, found mostly in the genital tract (tube, cervix, ovary, vagina) in patients with coincident or antecedent pregnancy. Non-gestational choriocarcinomas of the uterine cervix are likely to arise from germ cells and therefore behave like germ cell tumors. It is also possible by de-differentiation of epithelial cells into choriocarcinomas. In some instances, these are mixed tumors comprising epithelial elements and choriocarcinoma, but in others, they may have completely lost their epithelial phenotype [1].

Choriocarcinomas that appear as a primary process of the uterine cervix can easily be misdiagnosed as cervical pregnancy [2], benign [3], or malignant uterine cervical neoplasias [4]. The treatment of choice is single or combination chemotherapy determined in accordance with the FIGO 2000 classification, accompanied by surgery in patients with localized disease and resistance to chemotherapy, when indicated by clinical diagnosis.

The non-gestational origin of primary choriocarcinoma of the uterine cervix is determined by genetic study, which is generally lacking in case reports [5]. The prognosis of this tumor is extremely poor, despite chemotherapy and surgery. We present a case of non-gestational cervical choriocarcinoma confirmed using immunohistochemistry and molecular genetics, emphasizing the diagnostic difficulties and therapeutic course.

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Case report

A 32-year-old patient, without previous sexual relations or antecedent pregnancy, was submitted for treatment regarding dysfunctional uterine hemorrhaging, for 4 months, without visible improvement. At the onset of treatment, a gynecological examination and transvaginal ultrasonography (TVUS) were not performed due to an intact hymen. A transabdominal ultrasonography realized 1 month later showed no alterations in the uterine corpus and surrounding tissues. She was referred to our service with severe anemia and irregular vaginal hemorrhaging. A gynecological examination verified an intact ring-shaped hymen, and in a specular examination, a blackened, friable, hemorrhaging tumor mass (11.0 cm) occupying the uterine cervix, along with a purplish vaginal metastasis (4.0 cm) located in the vaginal wall before the cervix with similar necrotic characteristics. A quick pregnancy test showed up positive and the patient was submitted for chest radiography, color Doppler TVUS, pelvic magnetic resonance imaging (RMI), abdominal ultrasonography, and brain computed tomography (CT). The chest radiograph revealed pulmonary congestion with diffuse and interstitial infiltration and a 4-cm mass, in the superior lobe of the left lung. The RMI (Fig. 1C) and the

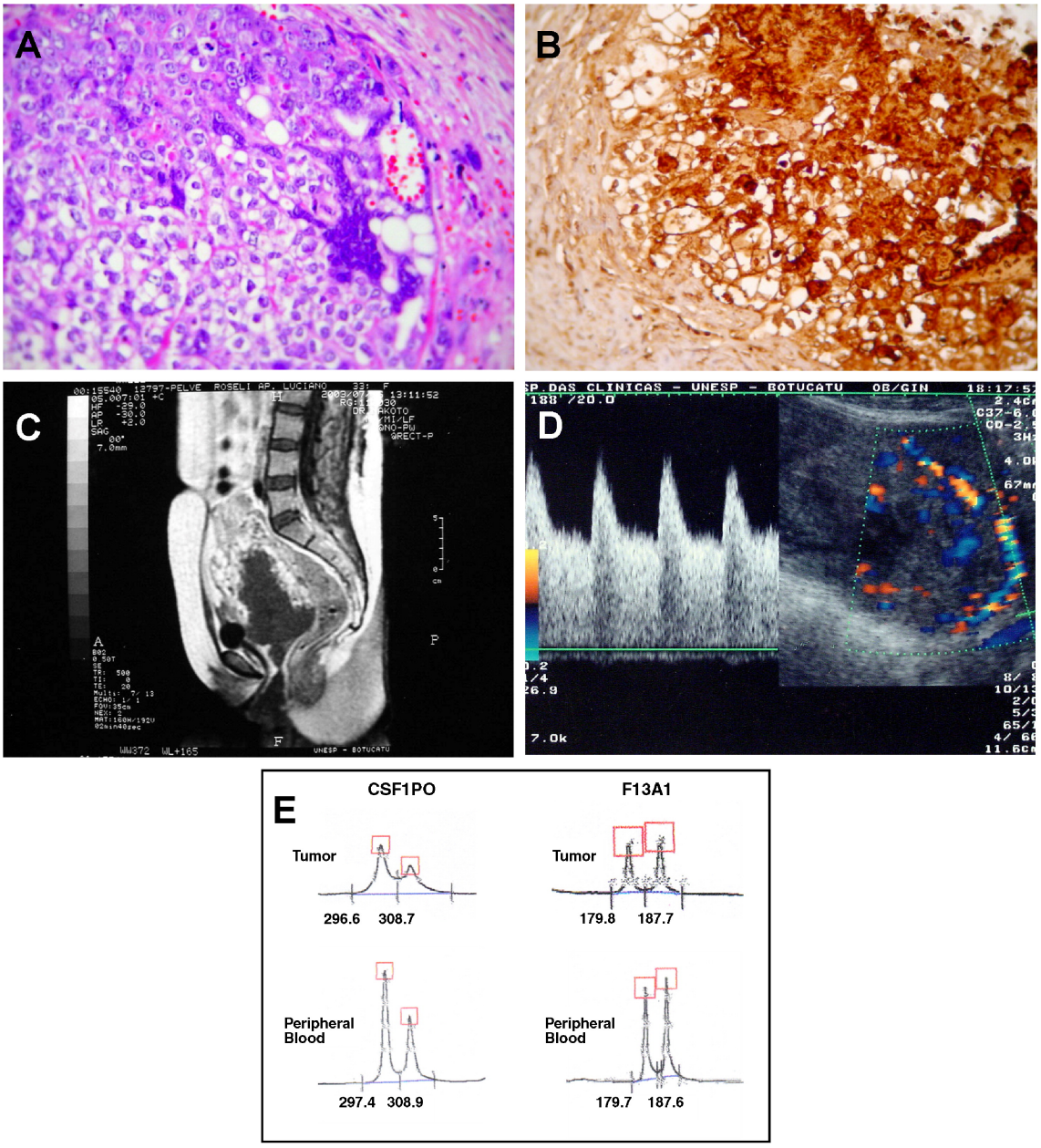

Fig. 1. (A) Tumoral tissue in uterine cervix showing atypical cyto- and syncytiotrophoblastic cells (Hematoxylin–eosin ×400). (B) β-hCG stained tumoral tissue (Immunohistochemistry ×400). (C) MRI of the pelvis showing central necrosis and peripheral blood flow of the cervical tumor extending to the uterine isthmus and vagina. (D) Transvaginal color Doppler US showing areas of vascularization and low resistance index (RI = 0.23) within the tumor. (E) Comparative study of the DNA of the tumor and the peripheral blood of the patient with the primers CSF1PO and F13A1 demonstrating the same genetic content.