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Uterine choriocarcinoma diagnosed 11 years after menopause: A case report

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ABSTRACT

Background: Gestational trophoblastic neoplasms (GTNs) encompass a wide spectrum of diseases, of which choriocarcinoma is one of the most common. Choriocarcinoma occurs mainly in relation to pregnancy and rarely after the menopause. It has the potential to metastasize to organs other than the uterus.
Case Report: We describe a 62-year-old woman who presented with postmenopausal bleeding 11 years after the menopause. Pelvic ultrasound and abdominal/pelvic computerized tomography showed an intrauterine mass. Choriocarcinoma was diagnosed by Pipelle endometrial biopsy with positive staining for beta-human chorionic gonadotropin (hCG) and KI 67 along with an elevated serum beta-hCG level. The tumor was managed with multiple cycles of multidrug chemotherapy and follow-up based on serum beta-hCG levels according to the guidelines of the International Federation of Gynecology and Obstetrics (FIGO).
Conclusion: This case report highlights that choriocarcinoma, a tumor normally associated with pregnancy, can present after the menopause.

1. Introduction

Gestational trophoblastic neoplasia (GTNs) include invasive mole, choriocarcinoma, placental-site trophoblastic tumor, and epithelioid trophoblastic tumor [1]. Choriocarcinoma, like other GTNs, is usually related to an antecedent pregnancy. Very rarely, it occurs after the menopause [2], presenting as postmenopausal bleeding. Choriocarcinoma has the ability to metastasize outside the uterus (such as to the lung, brain and liver) with initial presentation related to those sites [3].

In this case report, we describe a 62-year-old woman with postmenopausal bleeding who was found to have a choriocarcinoma confined to the uterus. Diagnosis was established by imaging, endometrial biopsy, and measurement of serum beta-human chorionic gonadotropin (hCG) levels.

2. Case Report

A 62-year-old previously healthy woman (gravida 3, para 2, aborta 1), presented to the emergency department with a 5-day history of moderate to severe intermittent postmenopausal bleeding and passage of vesicles from the vagina. Her periods had ceased at the age of 51 and her last pregnancy was when she was aged 42. Her first pregnancy had ended in a spontaneous abortion, which was followed by dilatation and curettage. There was no history of gestational trophoblastic disease.

Upon presentation, she complained of continuous pelvic pain radiating to the back, with episodes of dizziness and headaches. She denied any recent weight loss, night sweats, or fatigue.

Abdominal examination found mild tenderness mainly on the right upper quadrant (RUQ) and the left upper quadrant (LUQ). The uterus was moderately enlarged. The cervix was soft. The os was open and fleshy vesicles were seen. A pelvic ultrasound scan showed a large, moderately echogenic mass within the uterine cavity (Fig. 1A and B). An abdominal/pelvic computerized tomography (CT) scan with intravenous (IV) injection revealed a large hypo-attenuating well defined intra-cavitary uterine mass with peripheral enhancement (5.6 × 5.5 × 5.31 cm) and normal ovaries (Fig. 1C and D). Pipelle endometrial biopsy showed cytotrophoblast and syncytiotrophoblast, hemorrhage, and necrosis (Fig. 2A). A diagnosis of choriocarcinoma was suspected. Tumor cells were positive for beta-human chorionic gonadotrophin (beta-hCG) and KI 67 on immunohistochemistry (Fig. 2B and C). Histologically, there was no evidence of any other type of malignancy. Serum beta-hCG levels were 3143 IU/L, confirming the diagnosis of choriocarcinoma.

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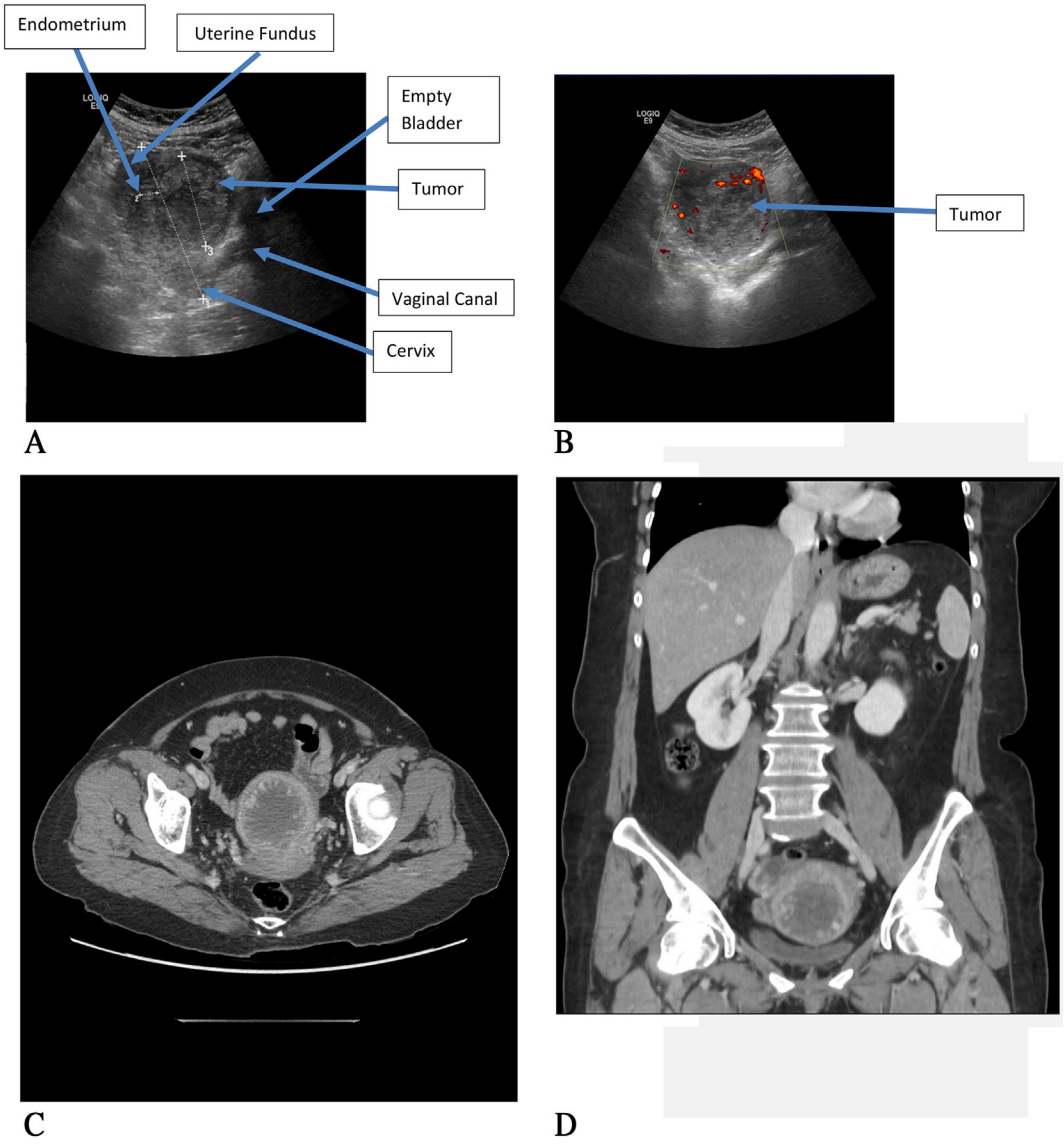

Fig. 1. A Sagittal view of the pelvis showing a retrograde uterus with a well circumscribed rounded solid mass involving the anterior wall of the uterus measuring 6 × 5.5 cm and seen to exert a mass effect on the cavity stripe, with posterior displacement. B Axial image from a power Doppler study of the uterus showing peripheral vascularization with a coarse heterogeneous echotexture of the uterine mass. C Axial CT scan of the pelvis showing a 5.6 × 5.5 × 5.3 cm centrally hypo-attenuating well defined intra-cavitary uterine mass with peripheral enhancement. D Coronal CT scan of the pelvis showing a 5.6 × 5.5 × 5.3 cm centrally hypo-attenuating well defined intra-cavitary uterine mass with peripheral enhancement.

Renal function tests, liver enzymes, thyroid profile, and coagulation profile were within normal limits. Brain, chest, and abdominal CT scans were normal. The tumor was classified as a high-risk stage 1 gestational trophoblastic neoplasm (GTN) with a staging score of 10 according to the guidelines of the International Federation of Gynecology and Obstetrics (FIGO).

A chemotherapy regimen consisting of a combination of etoposide, methotrexate, and dactinomycin, followed by cyclophosphamide and vincristine, was started. The patient declined to undergo hysterectomy and bilateral salpingo-oophorectomy. Her beta-hCG decreased to 711 IU/L after one cycle of chemotherapy. The same chemotherapy regimen was repeated every 2 weeks for five cycles, after which her beta-hCG level dropped below 4 IU/L. Beta-hCG levels remained below 4 IU/L for three consecutive readings undertaken at monthly intervals. Two additional cycles of chemotherapy were given according to FIGO guidelines for treatment of high-risk cases of GTN. The patient's beta-hCG level was scheduled to be followed up monthly for 1 year, then yearly for life. Her serum beta-hCG level 2 months after her last chemotherapy session was 0.282 IU/L.

3. Discussion

GTNs usually arise in the context of a recent antecedent pregnancy. Choriocarcinoma presents on -average within 12 months of pregnancy [4]. However, it can occur several years later. Sixty percent of GTNs follow a molar pregnancy, 30% follow abortions, and 10% follow ectopic or term pregnancies [5]. Little is known as to why some tumors present after the menopause.

Rangwala et al. [5] estimated the prevalence of GTN in the Arab countries and Asia to be 1 per 400 live births, and 1 per 1000 live births in developed countries. Gestational choriocarcinoma is even rarer after the menopause. Tsukamoto et al. [6] published a case series in 1985 of 20 GTNs in women aged 50 and over; 3 of these patients had choriocarcinoma after 11, 15 and 18 years of amenorrhea. Desai et al. [2] reported a case of choriocarcinoma in a 73-year-old woman 23 years after the menopause. Khuu et al. [7] reported a case of uterine carcinosarcoma with choriocarcinomatous dedifferentiation in a 71-year-old woman. O'Neill et al. [8] and Okamoto et al. [9] reported cases of choriocarcinoma 22 and 23 years after their last pregnancy. These two reports are similar to our report where the last pregnancy was 20 years previously.

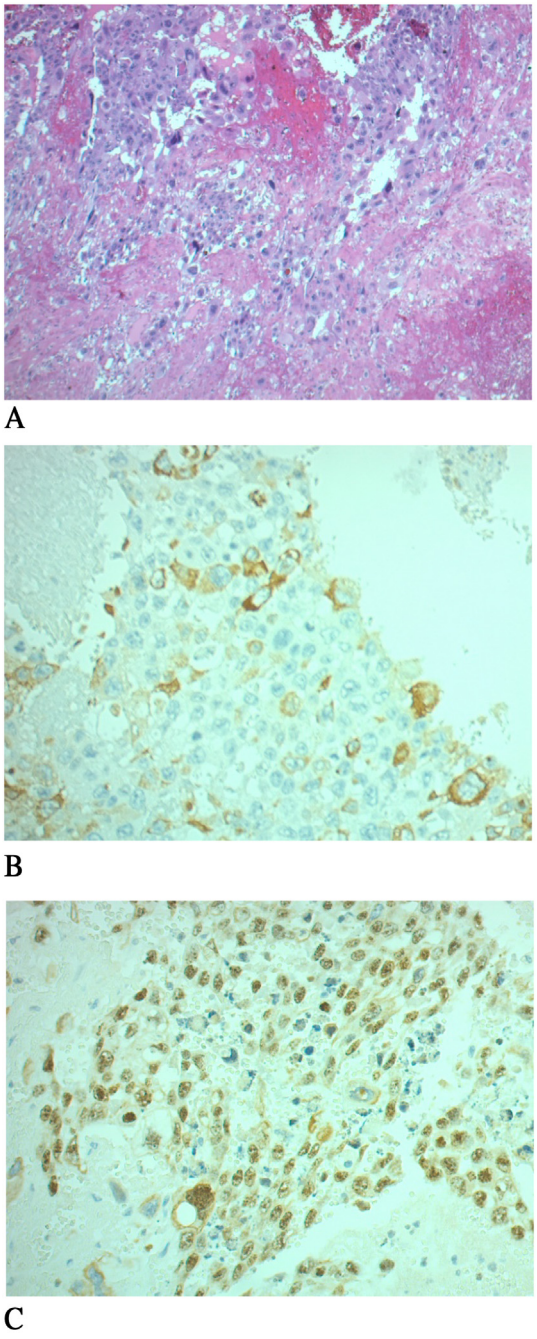

Fig. 2. A H&E staining of the tumor cells. B Immunohistochemistry staining of the tumor cells positive for beta-hCG. C Immunohistochemistry staining of the tumor cells positive for KI 67.

While most cases present with postmenopausal bleeding, acute surgical abdomen has been documented [10]. Diagnosis and staging are based, as in this case, on ultrasound, CT, biopsy with immunohistochemistry [11–13], and serum beta-hCG levels.

Uterine choriocarcinoma may be associated with adenocarcinomas or carcinosarcomas or mixed mesodermal tumors [13]. This case report is unique in that it concerns an isolated uterine choriocarcinoma.

Even if metastatic, choriocarcinoma is considered to be a curable gynecologic cancer; the overall survival rates are over 80% [13]. Chemotherapy has improved the survival rates from 19% to 90% [14]. Multidrug chemotherapy has been commonly used for metastatic and non-metastatic forms; the regimen we implemented comprised etoposide, methotrexate, dactinomycin, cyclophosphamide, and vincristine [13]. In cases of persistent trophoblastic disease in women at high risk with no desire for pregnancy, surgery is usually indicated as the first-line treatment [15]. Hysterectomy with bilateral salpingo-oophorectomy followed by chemotherapy regimens lowers the total doses of drugs received by the patient in comparison with chemotherapy alone (i.e. without surgery) [16].

In conclusion, we present a 62-year-old woman with choriocarcinoma, a high-risk stage 1 gestational trophoblastic neoplasm (GTN), FIGO staging score 10, 11 years after the menopause, and 20 years after the last pregnancy, which was confined to the uterus with no metastasis to the brain, abdomen, or lungs.

Contributors

Georges El Hasbani drafted the manuscript.
All authors contributed to case discussion and analysis.

Conflict of Interest

The authors declare that they have no conflict of interest regarding the publication of this case report.

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Patient Consent

Obtained.

Provenance and Peer Review

This case report was peer reviewed.

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