wjpmr, 2023, 9(4), 25-28

SJIF Impact Factor: 5.922

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Review Article

ISSN 2455-3301

WJPMR

GESTATIONAL CHORIOCARCINOMA IN A PATIENT WITH A HISTORY OF TUBAL MOLAR PREGNANCY: ABOUT A CASE AND REVIEW OF THE LITERATURE

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Article Received on 31/01/2023 **Article Revised on 20/02/2023** **Article Accepted on 12/03/2023**

ABSTRACT

Choriocarcinoma is a malignant trophoblastic tumor which remains rare but very metastatic and which is part of the Gestational Trophoblastic Diseases (GTD) whose common point is a hypersecretion of choriogonadotropic hormone. We report an original observation of a woman with gestational choriocarcinoma occurring 3 years after left salpingectomy for tubal molar pregnancy, through which we try to clarify this pathology.

KEYWORDS: Gestational choriocarcinoma, gestational trophoblastic disease, BetaHCG.

INTRODUCTION

Gestational trophoblastic disease (GTD) brings together several pathological situations related to fertilization and pregnancy. These tumors are rare and all present a vital risk, but are highly curable by appropriate care. GTD includes: hydatidiform mole (partial or total), invasive mole, choriocarcinoma, implantation site tumor or placental trophoblastic tumor.[1]

Gestational choriocarcinoma is a malignant tumor of the trophoblastic epithelium. The uterine muscle and blood vessels are invaded with areas of hemorrhage and necrosis. No villi are observed. The trophoblastic material, in columns or in plates, invades the normal tissues and can give distant metastases. The most common metastatic sites are the lungs, brain, liver, pelvis, vagina, spleen, intestines and kidney.[1]

We report an original case of a woman with gestational choriocarcinoma occurring 3 years after left salpingectomy for tubal molar pregnancy.

OBSERVATION

Mrs. BE, 39 years old, G5P3, having as ATCD a left salpingectomy performed in 2019 for a tubal molar pregnancy. Admitted to gynecological emergencies for metrorrhagia with pelvic pain on amenorrhea of 10 weeks. The clinical examination finds a patient hemodynamically and respiratory stable.

The gynecological examination finds on the speculum a macroscopically normal cervix with bleeding of reddish endo-uterine origin and on the vaginal examination, the cervix is closed and the uterus is increased in size compared to the gestational age.

An endovaginal ultrasound was performed revealing an enlarged uterus, the site of a heterogeneous, flaky endocavitary image, containing multiple small vesicles with Doppler hypervascularization. Absence of egg sac or visible embryo. The B-hCG assay was positive at 512,240 IU/ml.

A cerebro-thoraco-abdomino-pelvic CT scan was requested, objectifying two suspicious-looking right sub-pleural nodules, an enlarged uterus of heterogeneous volume with the presence of a caudal cyst of the pancreas.

The diagnostic hysteroscopy with a directed biopsy were made, with a histology in favor of a choriocarcinoma.

The patient was referred to the reference hospital for gestational trophoblastic diseases for multidisciplinary management for chemotherapy.

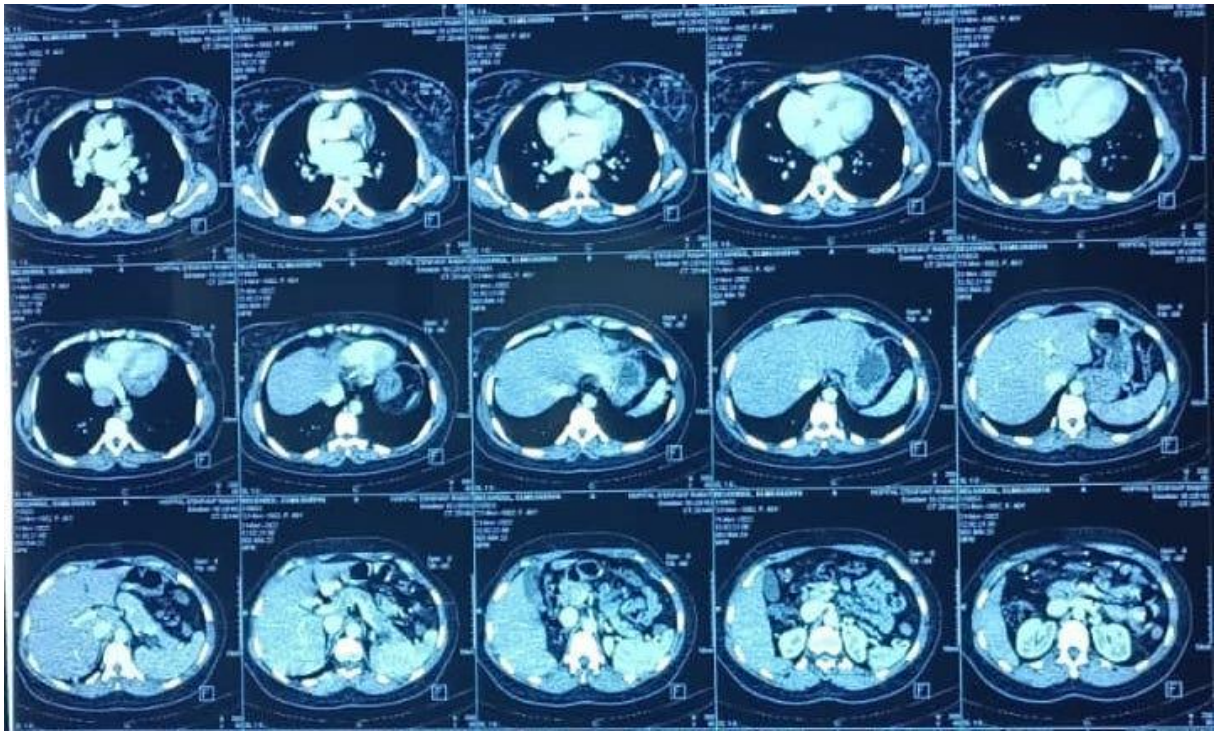

Figure1: Axial section at the level of the thoracic and abdomino-pelvic floor.

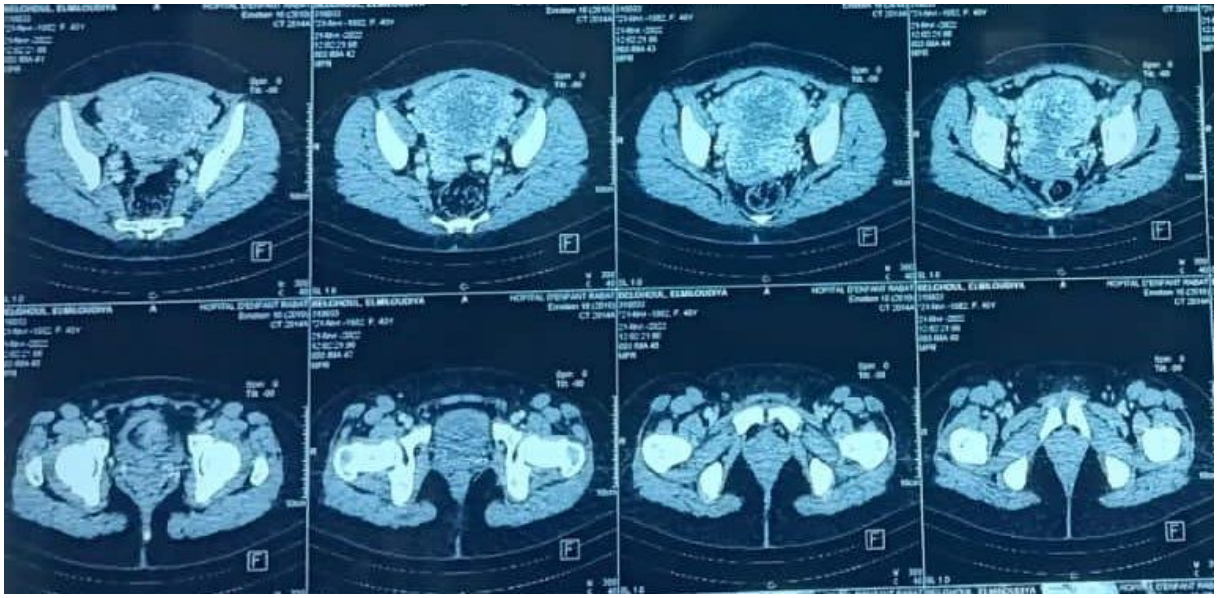

Figure 2: axial section at the level of the pelvic floor.

DISCUSSION

Choriocarcinoma is a highly malignant trophoblastic tumor composed of two types of cells: syncitio-trophoblastic and cytotrophoblastic.[2] Most cases of choriocarcinoma are intrauterine and of gestational origin.

Gestational choriocarcinoma is a rare complication of pregnancy (incidence 1 in 20,000 to 1 in 25,000 in Western countries) and usually results from a previous molar pregnancy or rarely from a non-molar pregnancy, within one year the previous pregnancy.[3]

Other risk factors include a complete anterior hydatidiform mole (a 100-fold increased risk), advanced age, long-term oral contraceptive use, and blood type A.[4,5]

In any patient suspected of choriocarcinoma, clinicians must deepen their questioning, particularly on the gyneco-obstetric history such as spontaneous abortions and molar pregnancies which increase the risk of choriocarcinoma.[6]

In our case, the diagnosis was suspected in the presence of metrorrhagia associated with a very high dosage of

BhCG with an ultrasound image endocavitary invading the myometrium without forgetting his major history of salpingectomy for a tubal molar pregnancy.

Choriocarcinomas have been reported to be in association with endometrial carcinomas as well as liver, lung and bladder carcinomas.[7] Hence the importance of looking for symptoms originating from these organs, such as hemoptysis or gastrointestinal bleeding.[8]

Choriocarcinoma has a highly metastatic nature, thoracic, abdominal and pelvic CT as well as cerebral MRI are recommended in the staging assessment to assess and stage the metastases encountered.[9]

Gestational choriocarcinoma is one of the gestational trophoblastic tumors. The FIGO-WHO 2000 score, developed at the FIGO Congress in Washington[10], makes it possible to group both the anatomical stage and the prognostic score. It classifies patients into two groups: low and high metastatic risk.[11]

Chemotherapy has supplanted surgery and has become the treatment of choice for gestational trophoblastic tumours, with the exception of placental implantation site tumors which are chemoresistant and where surgery retains its place.[12,13,14] Monochemotherapy is indicated in low-risk patients and polychemotherapy is required in high-risk patients, according to the FIGO-WHO 2000 classification.[10]

Therapeutic efficacy is judged on the evolution of plasma β-hCG levels, falling by half after each course. Surgery retains very specific indications differing according to the evolutionary stage and the condition of each patient. It remains indicated in case of peritonitis, incoercible bleeding or chemoresistance.[14.15]

Radiotherapy is indicated in the treatment of choriocarcinoma or its metastases; it is proposed as an adjuvant to chemotherapy.[15]

Post-therapeutic monitoring must be both clinical and paraclinical, essentially based on the regular measurement of β-hCG.[11,14,16] During monitoring, effective contraception should be prescribed for at least one year.[16.17]

Any subsequent pregnancy should be considered at risk of developing a gestational trophoblastic tumor and therefore requires an ultrasound as soon as possible. After delivery, the placenta should be sent to the pathologist and β-hCG should be measured at six weeks postpartum.[18]

Recovery is defined by normalization of β-hCG levels for three consecutive weeks. The existence of late recurrences justifies prolonged monitoring.[16.17]

The patient is still following these courses of chemotherapy.

FIGO 2000 classification and staging of gestational trophoblastic tumors

Anatomical stage

Stage I: Disease limited to the uterus.

Stage II: TTG extended outside the uterus, limited to the genital structures (adnexa, vagina, broad ligament).

Stage III: TTG extended to the lungs, with or without known genital involvement.

Stage IV: Any other metastatic site.

WHO (World Health Organization) prognostic score modified by FIGO 2000[19]

Scores	0	I	2	4
Age (years)	<40	≥40		
Antecedent pregnancy	Mole	Abortion	Term	
Antecedent pregnancy from index pregnancy	<4	4-6	7-12	≥13
Pre-treatment serum hCG (UI/ml)	$<10^3$	10^3-$<10^4$	10^4-$<10^5$	$\geq 10^5$
Largest tumor size (including uterus		3-<5cm	≥5cm	
Site of metastasis	Lung	Spleen, kidney	Gastro-intestinal	Liver, Brain
Number of metastases	0	I-4	5-8	>8
Previous failed chemotherapy			Single drug	2 or more drugs

Score≤6 : Low-risk group Score≥7 : High-risk group

CONCLUSION

The diagnosis of MTG should be considered in any patient of childbearing age, with or without a history of molar pregnancy, with or without a recent postpartum context. Choriocarcinomas remain rare, they have a good prognosis if diagnosis and management are rapid and in the absence of metastases, otherwise their prognosis is very unfortunate.

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