

Invasive Mole Complicating a Spontaneous Abortion

Hary Fanambinantsoa Rabarikoto^{1,*}, Nomeharisoa Rodrigue Emile Hasiniatsy², Herilalao Elisabeth Razafindrafara³, Domoina Malala Aurélia Randriambololona⁴

¹Department of Obstetrics and Gynecology, Military Hospital Antsiranana, Madagascar

²Department of Oncology, Soavinandriana Hospital Center Antananarivo, Madagascar

³Department of Pathology, Soavinandriana Hospital Center Antananarivo, Madagascar

⁴Department of Obstetrics and Gynecology, University hospital center Tanambao I Antsiranana, Madagascar

***Corresponding Author:** Hary Fanambinantsoa Rabarikoto, Service de Gynécologie Obstétrique, Hôpital Militaire, Antsiranana 1, Boulevard Sakaramy, Antsiranana 201, Madagascar, **Email:** hbararikoto@yahoo.com

Abstract: Invasive mole is a rare gestational trophoblastic neoplasia occurring exceptionally after a miscarriage. It is a chemosensitive and curable disease. We aimed to report a case of invasive mole occurring after a spontaneous abortion. A 32-year-old patient, multiparous, presented persistent vaginal bleeding 12 weeks after expulsion. The pregnancy test was positive, the ultrasound didn't find any abnormalities and the biopsy of the endometrium was not contributive. The patient returned two months after with a cardiovascular collapse and presented an acute abdominal pain with haemoperitoneum at the ultrasonography. A laparotomy was performed in emergency which discovered an important bleeding from the fundus of the uterus which has been perforated, leading up to realize an emergency hemostasis hysterectomy. The histological examination of the operative specimen found an invasive mole. The patient was put on methotrexate. A favorable evolution was observed.

Abbreviations: GTN: gestational trophoblastic neoplasia, HCG: choriogonadotrophin, MTX: methotrexate

Keywords: Chemotherapy, invasive mole, miscarriage, surgery, uterine perforation

1. INTRODUCTION

Invasive mole is a rare gestational trophoblastic neoplasia (GTN) characterized by the penetration of molar tissue into the uterine myometrium or into the uterine vascularization [1]. In rare cases, these villi cross the entire uterine wall resulting in acute haemoperitoneum [2]. It usually follows a molar pregnancy but can occur after any pregnancy whatever its outcome [2, 3]. We aimed to report a case of invasive mole developing after spontaneous abortion, and revealed by a haemoperitoneum with uterine perforation.

2. OBSERVATION

This is a 32-year-old patient, G6P4A2, who was seen in consultation for persisting vaginal bleeding three months after spontaneous miscarriage. The last abortion occurred at seven weeks of gestation, the expulsion happened at home, without any intrauterine proceeding. She didn't take any contraception. During the

examination, the abdomen was not painful, the bleeding came from the endocervix. The urinary choriogonadotrophin (HCG) was positive, the ultrasound has found an empty uterus without particular intrauterine image, nor image of suspicious latero-uterine mass. The dosage of plasma HCG was prescribed but not honored by the patient. A biopsy of the endometrium with the pipelle of Cornier was not contributive, finding no trophoblastic material or sign of malignancy. The patient was long lost after. Two months after this period, she returned for acute abdominal pain associated with heavy vaginal bleeding. Clinical examination found a cardiovascular collapse with peritoneal flowing at the ultrasonography. A laparotomy in emergency was realized, revealing an important bleeding from the fundus of the uterus. It was irregular, presenting a perforated lesion with 2.5 cm of diameter which had an appearance of placenta percreta, but without fetus, thus leading up to suspect a gestational trophoblastic neoplasia. An hemostasis hysterectomy was

decided in emergency. The plasma rate of HCG the day of the intervention was 89 368 mIU / ml and it dropped more than 10% the next day (78762mUI / ml). The histological examination

of the operative specimen found an invasive mole within a gestational trophoblastic neoplasia, confirmed by a review of a referral team (Figure 1).

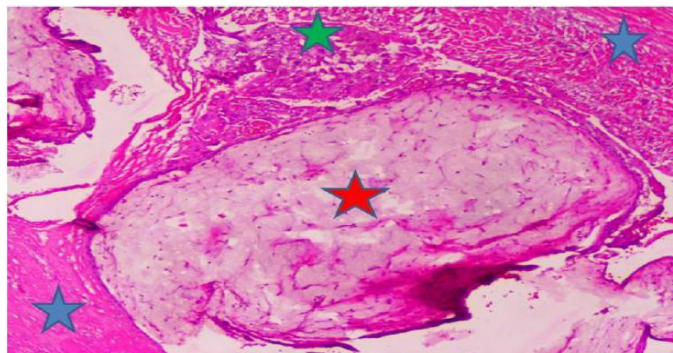


Figure1. *Histological aspect of the invasive mole in our patient: Uterus. Invasion of the myometrium (blue star) by hydropic molar villi (red star) associated with hyperplastic trophoblastic cells (green star), corresponding to and invasive mole (Hemalun-Eosin x 10)*

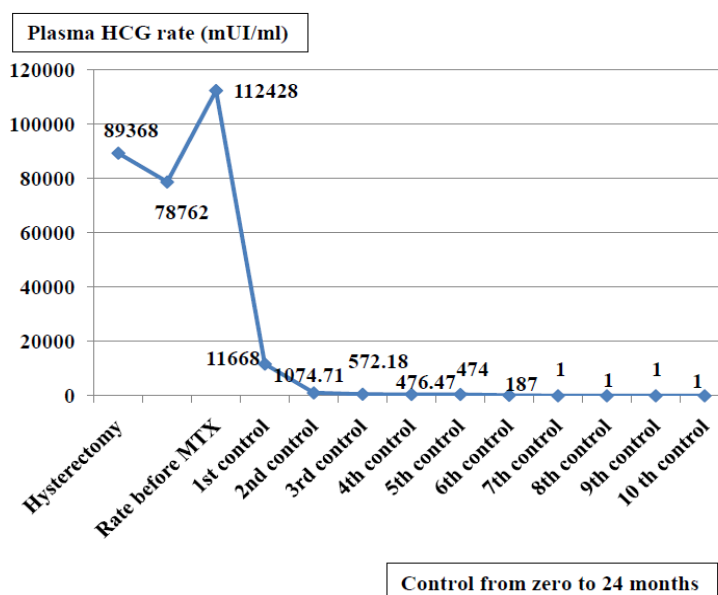


Figure2. *Evolution curve of the plasma HCG rate*

The HCG was up to 112 428 mIU / ml after 15 days. The extension assessment was negative. The prognostic classification of the International Federation of Gynecology and Obstetrics was less than 6, the patient was treated by methotrexate (MTX). The decrease of the level of plasma HCG was rapid under chemotherapy and its negativation was obtained after two months (Figure 2). At 24 months of follow-up, the patient was completely asymptomatic.

3. DISCUSSION

The invasive mole is a histological subgroup of GTN. There are three other types, including choriocarcinoma, placenta-site trophoblastic tumor and epithelioid trophoblastic tumor [3,4]. Its prevalence is not much known, but all GTN constitute less than 1% of all gynecological tumors [5]. It usually follows a molar pregnancy

[1] but can occur after any pregnancy whatever its outcome [2, 3]. An histological examination of all abortions' products is advised to avoid a delay of the diagnosis. In our case, the invasive mole happened after a spontaneous abortion which seemed following a normal pregnancy. These complications have to be sought in case of persistence of vaginal bleeding after a miscarriage. Indeed, any persistent unexplained bleeding at more than six weeks after a pregnancy should have a GTN searched [3]. Pelvic ultrasound and HCG dosage serum total allow to have the diagnosis [3, 6] However, the definitive diagnosis of invasive mole is made on histology [7].

For our patient, the diagnosis of invasive mole was made late, only after the histological examination of the operative specimen.

Concerning the treatment, hysterectomy is indicated to control complications and stabilize patients in cases of abdominal urgency by uterine bleeding, severe bleeding, sepsis, and the patient who had completed her parental project

[2, 8-10]. In Madagascar, in the first case described by Rajaonera in 1965, it was the main treatment of the invasive mole [11]. It does not prevent yet the occurrence of metastases [2].

Table1. FIGO/WHO scoring system based on prognosis factors [6].

FIGO/WHO risk factor scoring with FIGO staging	0	1	2	4
Age	< 40	>40	-	-
Antecedent pregnancy	Mole	Abortion	Term	-
Interval from index pregnancy, months	< 4	4-6	7-12	>12
Pretreatment Hcg mUI/mL	<10 ³	>10 ³ -10 ⁴	>10 ⁴ -10 ⁵	>10 ⁵
Largest tumor size including uterus, cm	-	3-4	≥5	-
Site of metastase including uterus	Lung	Spleen, kidney	Gastrointestinal tract	Brain, liver
Number of metastasis identified	-	1-4	5-8	>8
Previous failed chemotherapy	-	-	Single drug	Two or more drugs

Currently, chemotherapy is the main treatment of invasive mole and is effective in almost 100% of cases [12, 13]. It will be based on the category of prognosis classification of the International Federation of Gynecologists and Obstetricians (FIGO) both the World Health Organization (Table 1) [6].

The score value for the risk factor are 1, 2 and 4 and score of 6 or less is classified “low-risk disease” [3, 6]. Patient at a low-risk like the case we report could put on monochemotherapy with MTX [13, 14].

The monitoring of plasma HCG allows to evaluate the efficiency of chemotherapy of an invasive mole [3]. In our practice, plasmatic HCG is dosed before chemotherapy to have a starting point. Then it is monitored weekly until two weeks after negativation, monthly during three months and quarterly until 24 months after diagnosis. The chemotherapy is effective if the plasma HCG level is negative.

4. CONCLUSION

Invasive mole is a rare gestational trophoblastic neoplasia that can be life-threatening. Any persistent vaginal bleeding after any pregnancy should lead up to suspect it. Early diagnosis allows the initiation of chemotherapy which permit to avoid complications and to preserve the obstetric prognosis. Hysterectomy can be considered when the vital prognosis is threatened.

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