

Ectopic molar pregnancy: retrospective study and literature review

Abstract

Gestational trophoblastic disease (GTD) is a group of multiple conditions with a wide range of clinical and biological expression and metastatic potential. This pathology includes: benign entities: complete mole (CM) and partial mole (PM) and malignant entities called GTD, which include: invasive mole, choriocarcinoma, trophoblastic tumors of the implantation site (TTSI) and epithelioid trophoblastic tumors (ETT).¹ GTD have a high metastatic potential that is life-threatening in the absence of adequate treatment. The development of the molar pregnancy is often done in the uterine cavity, however in certain particular cases this pregnancy can have other localization like in our series. The occurrence of hydatidiform mole in an ectopic site is very rare, the incidence of ectopic hydatidiform mole was 1 per 1,000,000 pregnancies.² It is important to differentiate hydatidiform mole from an ectopic pregnancy, especially in infertile women and especially in those with a history of ovulation induction.³

Keywords: malignant entities, ectopic molar pregnancy, epithelioid trophoblastic tumors

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Abbreviations: GTD, gestational trophoblastic disease; AW, amenorrhea week; β - HCG, human beta chorionic gonadotropin hormone; TTSI, trophoblastic tumors of the implantation site; ETT, epithelioid trophoblastic tumors; CM, complete mole; PM, partial mole

Introduction

Hydatidiform mole is a rare gestational anomaly defined by cystic degeneration of the chorionic villi associated with tumor proliferation of the trophoblast. However, there is sometimes the development of an embryo, which is generally non-viable: this is called partial hydatidiform mole. In this case, the occurrence of hydatidiform mole in an ectopic site is very rare. This entity is characterized by increased levels of human beta chorionic gonadotropin (β - HCG) which is useful for diagnosis as well as follow-up after treatment.

Material and methods

We report a short series of 7 cases managed in our center which presented a molar ectopic pregnancy.

Results

Epidemiologically, the average age of our patients was 31.8 years with a range from 28 to 42 years, the average gestation was 2.2 with 3 primiparous, 2 pauciparous and 4 multiparous. The history of molar pregnancy or ectopic pregnancy was not found in any of our patients, while the history of infertility was found in 42% of patients. The dominant symptomatology in our patients was metrorrhagia, which was found in 85.7% of patients, while pelvic pain was found in only 71.4% or 5 patients. The average gestational age at the moment of diagnosis was 6 amenorrhea week (AW) with 1 patient at 4 (AW), 3 patients at 6 (AW), 1 patient at 8 (AW) and 1 at 10(AW).

Biologically: Chorionic gonadotropin hormone (HCG) levels ranged from 1259 to 40000 IU/L with an average of 1367IU/L. These HCG levels are relatively higher than those usually found in patients with non-molar ectopic pregnancies. This may be an indirect indicator of the presence of a molar pregnancy within the ectopic pregnancy.

Radiologically: All our patients underwent pelvic ultrasound which revealed a latero-uterine images, 3 of which were on the left side and 4 on the right one, 6 patients: 85.7%, had pelvic effusions(Figure 1).

Therapeutically: All our patients were operated and underwent of a radical surgical treatment such as salpingectomy except for one patient who benefited of conservative surgical procedure with conservation of the tube. No patient had a postoperative complication(Figure 2).

All patients had biological monitoring with a mean time to HCG negativation of 1 month except for one patient who was lost and consulted after one year with a negative HCG level. All of our patients had adhered to estrogen-progestin contraception(Figure 3).

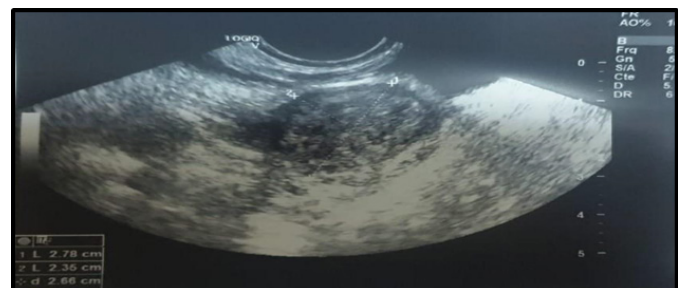


Figure 1 Heterogeneous echogenic image in latero-uterine 24*23mm.

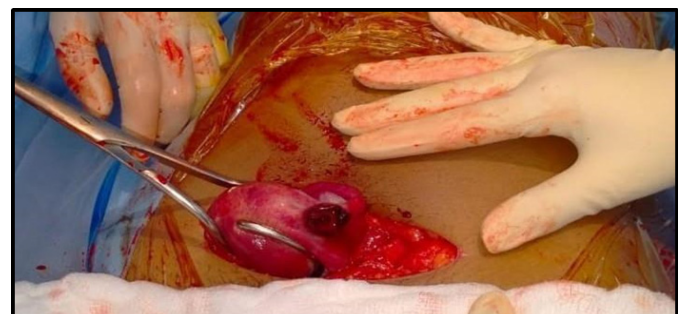


Figure 2 Presence of a tubal pregnancy.

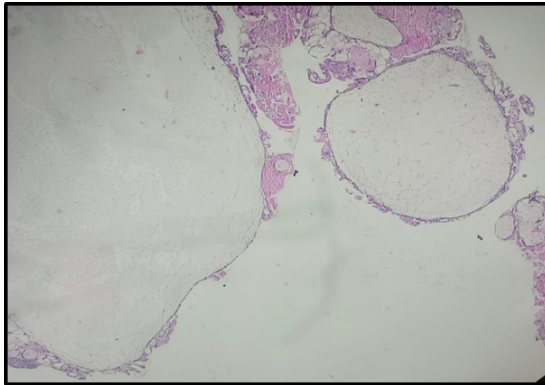


Figure 3 Large chorionic villi with a hydropic and avascular axis bordered by a focally proliferating trophoblast.

Discussion

Molar pregnancy is a rare abnormality of pregnancy, defined by cystic degeneration of the chorionic villi associated with a tumorous proliferation of the trophoblast. It is characterized by increased pregnancy symptoms: bleeding, nausea, vomiting, abdominal swelling, increased pregnancy hormone (HCG) levels. Moles result from a fertilization abnormality with excess paternal chromosomal material. Complete mole is derived from fertilization of an anucleated egg by one or two haploid spermatozoa. This rare complication affects 1 to 3/1000 pregnancies. Very young women, under 20 years of age, and women between 45 and 50 years of age are considered to be the two groups at risk for molar pregnancy.⁴ The hCG level in tubal molar pregnancies may be slightly lower than the levels in intrauterine mole because implantation in the fallopian tube may prevent adequate vascularization.⁵

Abnormally high or low β -hCG levels may suggest diagnosis of a tubal molar pregnancy but the diagnosis of certainty is made after anatomopathological examination of the operative part. Molar tubal pregnancy mimics normal tubal pregnancy, making diagnosis very difficult, but despite their similarities, tubal rupture occurred early in the molar group compared to the normal group. This may be due to the likelihood of invasion and penetration of trophoblastic tissue in the GTD compared to the trophoblast in a normal pregnancy.⁶ In our series, the diagnosis of molar pregnancy was made with anatomical-pathological study of ectopic pregnancy tissue.

Patients who have consulted for a symptomatology evoking signs of ectopic pregnancies made of acute latero-uterine pelvic pain, secondary amenorrhea and metrorrhagia made of black blood. The ultrasound picture evoking an ectopic pregnancy EP (empty uterus, pelvic effusion and latero-uterine image) as well as positive β -hCG levels.

MRI is a valuable tool in the diagnosis of ectopic hydatidiform moles.⁷

The management of ectopic molar pregnancy consists of surgical evacuation of the product of conception preferably by laparoscopy, with the goal of completely removing the trophoblastic tissue. The prognosis of ectopic molar pregnancy is the same as for other forms of gestational trophoblastic disease; thus, molar pregnancy can potentially be complicated by persistent trophoblastic disease and

malignant transformation as in intrauterine molar pregnancy.² The risk of gestational trophoblastic disease after salpingectomy in tubal pregnancy is considered much lower than intrauterine disease since the lesion has been completely removed.⁸ This risk is close to 10 to 15% for complete moles and 0.5 to 3% for partial moles. Treatment is then by chemotherapy.⁹

As with intrauterine molar pregnancy, molar tubal pregnancy must be followed up after surgical management. This monitoring is based on the β -hCG level as the classic protocol of molar pregnancy as well as the patient must remain on contraception. The prognosis of tubal molar pregnancies is the same as for other forms of gestational trophoblastic disease.¹⁰

Conclusion

The ectopic molar pregnancy is a rare pathology. It mimics, clinically and radiologically a normal tubal pregnancy. During the surgical exploration the discovery of vesicles can guide the diagnosis but the gold star remains the anatomical-pathological examination alone can confirm the diagnosis. The prognosis of this rare entity is the same of intrauterine molar pregnancy.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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