

An Unusual Cause of Gestational Trophoblastic Disease? A Matter of Concern

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Article Type: Case Report, **Submission Date:** 10 October 2016, **Accepted Date:** 13 January 2017, **Published Date:** 01 May 2017.

Citation: Gowri Dorairajan (2017) An Unusual Cause of Gestational Trophoblastic Disease? A Matter of Concern. J Gyn Obs Bul 1(2): 3-4. doi: <https://doi.org/10.24218/jgob.2017.07>.

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Abstract

Gestational trophoblastic disease (GTD) is uncommon after the medical abortion of unwanted pregnancy. A case is described that developed GTD 2 weeks after undergoing medical abortion with a single dose misoprostol. We treated the same with methotrexate. The authors raise concern about the use of misoprostol alone without prior mifepristone as a risk for developing a gestational trophoblastic disease.

Keywords: Gestational trophoblastic disease, Invasive mole, Abortion, Misoprostol.

Introduction

Gestational trophoblastic disease after an abortion is rare. It is reported to be 0.4% among the spontaneous miscarriages studied over a period of 4 years [1]. The case brings out an unusual cause of gestational trophoblastic disease in a woman who underwent medical abortion for an unwanted nine weeks live pregnancy.

Case report

A 25-year-old third gravid woman presented with nine weeks of unplanned pregnancy. She was para2. She had two normal deliveries previously, and the children were six and three years respectively. She wanted to terminate the pregnancy and undergo sterilization operation. She had never undergone abortions earlier. The couple was using barrier methods. There was no significant past medical or surgical problems. There was no history of hydatidiform or abnormal pregnancies or apparent genetic disorders in the family.

On examination, she was normotensive, not anaemic in appearance. General physical and systemic examination was normal. The cervix was normal in appearance; uterus was anteverted 8-10 weeks' size. There was no adnexal pathology. Her imaging confirmed a single live intrauterine pregnancy with a CRL measurement consistent with nine weeks' gestation. Her blood group was A+.

We counselled the couple, and she opted for medical abortion

followed by postabortal sterilization.

Medical abortion was carried out with a single dose of 800 micrograms of misoprostol. The woman expelled the fetus within 12 hours. The process was uneventful. Tubectomy was performed through a mini-laparotomy procedure uneventfully. We discharged the woman after 48 hours.

She reported ten days later with bleeding from the vagina. The bleed was about 10-20ml.

There was no associated pain abdomen or fever. The vitals were stable. She was not anemic. Speculum examination revealed bleeding from the cervix. The uterus was normal size. There was no tenderness. Presuming endometritis, we administered antibiotics. After 72 hours the bleeding continued so she was further evaluated. The beta human chorionic level was found to be 400,000 mIU/ml, and the ultrasound revealed diffuse echogenicity with increased vascularity with low pulsatility index of the posterior wall of the uterus (Figure). The metastatic workup was negative suggesting low risk gestational trophoblastic disease.



Figure: Sonographic picture is showing increased vascularity of the posterior wall of the uterus

We administered 1mg/kg methotrexate injection in consultation with the medical oncologist. There was a steady fall in hCG levels which became undetectable after three courses. We gave two more doses after that. She recovered well.

Discussion

Medical abortion has drastically changed the practice of managing unwanted pregnancies. It includes antiprogesterone mifepristone to devitalize the villi followed by misoprostol (prostaglandin E₁) to bring about uterine contractions to empty the uterine contents through the vagina. However, over the years this regimen has been revised to the lowest possible dose of antiprogesterone and a single dose of misoprostol. The Cochrane review [2] had concluded that misoprostol alone might have more failures and oral route is less efficient than the vaginal route (RR 3.00, 95% CI 1.44 to 6.24). WHO has endorsed the use of misoprostol alone for medical termination up to 63 days of pregnancy especially for low resource setting situations where mifepristone is unaffordable.

In our case, only misoprostol was given for procuring an abortion. The woman developed the gestational trophoblastic disease within two weeks of abortion that was confirmed by Doppler scan and high levels of hCG levels. Increased vascularization of the myometrium has been found to be a significant marker of gestational trophoblastic disease [3,4].

There have been only two similar cases reported earlier. Lichtenberg [5] reported a case earlier where GTD was observed after 60 days of medical abortion. In their case, the pregnancy was abnormal, to begin with. She was administered mifepristone as well as misoprostol. Sixty days later she had presented with bleeding for which they did curettage. The histopathology confirmed molar tissue.

In yet another case reported by Mousavi and, Behnamfar [6], the women developed high-risk GTD with metastasis in the liver six weeks after undergoing elective abortion with misoprostol. The authors reported this as a rare possibly coincidental occurrence after the elective abortion.

We raise concern that the administration of misoprostol alone without prior mifepristone, could bring about violent contractions of the uterus resulting in expulsion of the foetus but the active vital villi might penetrate the myometrium and result in gestational trophoblastic disease.

Conclusion

The author raises concern about the use of misoprostol alone without prior mifepristone for medical termination of late first trimester pregnancy. It is possible that such use could pose a risk for invasive mole.

Acknowledgment

I acknowledge the use of JIPMER infrastructure for patient care. There is no funding involved.

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