Journal of Obstetrics, Gynecology and Cancer Research | ISSN: 2476-5848

# Use of Misoprostol Prior to Molar Evacuation: A Letter to Editor

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10.30699/jogcr.7.4.356

**Received:** 2021/09/01; **Accepted:** 2021/10/17; **Published Online:** 14 Mar 2022;

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## Dear Editor in Chief

I write to you regarding the published article in The Journal of Obstetrics, Gynecology, and Oncology Research titled "The Association of Gestational Trophoblastic Neoplasia and Misoprostol Administered Before Suction Curettage of Molar Pregnancy" by Aminimoghaddam *et al.* that was published on Sept 27, 2019 **(1)**. The article was revised with interest and raised some serious concerns for me.

Misoprostol is a synthetic analog of prostaglandin E1 that is successfully used for prophylaxis and treatment of primary postpartum hemorrhage because of its strong uterotonic effect in a dose of 800 ug **(2)**. Misoprostol is also used in labor induction with a small dose of 25 to 50 ug but with some reported complications such as uterine hyperstimulation, meconium staining of liquor, and rarely uterine rupture **(3)**. Other side effects include fever, chills, vomiting, and diarrhea **(4)**. Misoprostol is a proven induction agent in the first and second trimester for termination of pregnancy or fetal death. Furthermore, misoprostol for cervical ripening before gynecologic procedures in postmenopausal women is not effective **(5)**.

According to the Royal College Green Top guidelines, there are theoretical concerns over the routine use of potent oxytocic agents because of the potential to embolism and disseminate trophoblastic tissue through the venous system **(6)**. Data from the management of molar pregnancies with mifepristone and misoprostol are limited **(7)**. Evacuation of complete molar pregnancies with these agents should be avoided since it increases the sensitivity of the uterus to prostaglandins **(6)**.

Our GTD clinic was established in September 2015 as a central referral clinic in Lower Egypt **(8)**. Till now, we registered more than 450 GTD cases. Based on the RCOG recommendations **(6)**, we did not recommend the use of misoprostol in cervical ripening in our University Hospital. However, we found that some colleagues may misdiagnose partial or early complete mole as missed abortion and subsequently primed the cervix with misoprostol prior to suction evacuation. We reported 7 cases who used the drug for cervical ripening; 4 of them developed invasive mole and/or pulmonary metastasis (57.1 %) during the routine follow up that required chemotherapy, in contrast to the cases who did not use misoprostol for ripening in our clinic that was reported as 15% **(8)**.

Other debates about the published article of Aminimoghaddam *et al.* **(1)** are as follows:

1. The authors did not justify the scientific rationale for the use of misoprostol before molar evacuation. The cited articles discussed misoprostol use in labor induction and missed abortion, not molar evacuation. There is no international guideline, society recommendation, or FDA approval for the use of misoprostol prior to molar evacuation.

2. The dose, route of administration, and duration of the drug were not mentioned.

3. The results showed that progression and pulmonary metastases are less in the misoprostol group, which couldn't be understood.

4. Strangely, consent was obtained from 150 cases, although it is a retrospective study involving patients' files over many years from 2006 to 2013.

6. From the statistical aspect, when the effect of misoprostol is nullified, the incidence of GTN progression should be nearly similar in both groups. However, the authors reported a statistically significant difference which may point to "a protective effect" of misoprostol which is not logical.

Finally, I think the published paper gave a wrong message about the safety of misoprostol in cervical ripening prior to molar evacuation.

I am afraid that some gynecologists worldwide may implement the use of this drug and subsequently increase the rate of postmolar gestational trophoblastic neoplasia and other serious complications.

Hopefully, the authors of the concerned article and the editors of the Journal will reply to these comments and publish this letter with the reply in the next volume of JOGCR.

## Conflict of Interest

The author declared no conflict of interest.

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**How to Cite This Article:**

Hemida R. Misoprostol for Cervical Ripening Prior to Molar Evacuation: A Letter to the Editor. J Obstet Gynecol Cancer Res. 2022; 7 (4):356-7.

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