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Taiwanese Journal of Obstetrics & Gynecology

journal homepage: www.tjog-online.com

Correspondence

Misoprostol during cesarean delivery: At which time and by which route?



Dear Editor:

I write to you as regard the article published at your journal entitled "Sublingual misoprostol versus intravenous oxytocin in reducing bleeding during and after cesarean delivery: A randomized clinical trial" Volume 55, 2016.

I fully agree and support this article in the true effect of misoprostol in reducing blood loss during and after cesarean delivery. In Egypt, Obstetricians prefer Misoprostol owing to its uterotonic effect in minimizing blood loss during cesarean and vaginal deliveries. Recent studies evaluated two important issues; timing of administration of misoprostol and the route of administration of misoprostol.

Literature review revealed three different times for administration of misoprostol during cesarean delivery; preoperative, intraoperative or postoperative administration. As regard routes of administration of misoprostol, three main routes were found; sublingual, oral and rectal routes [1].

In the relevant article, sublingual misoprostol was found to be superior to oxytocin and these results although supported by many studies, other studies denied this effect. Nowadays the costs are considered an important issue for both obstetrician and patient. Misoprostol is costly in comparison to oxytocin. In Egypt one tablet of Misoprostol costs one Dollar while one oxytocin ampoule costs 0.25 Dollar.

In a randomized trial, conducted in Quito, Ecuador, 100 women received either sublingual misoprostol (400 µg) or intravenous oxytocin (10 IU). Bleeding in the misoprostol group was no different than in the oxytocin group. Shivering was reported in 66% of women in the misoprostol group [2].

A large review study was done by **Conde-Agudelo** to evaluate the use of misoprostol during cesarean delivery and found no statistically significant differences between misoprostol and oxytocin in reducing intraoperative and postoperative hemorrhage at cesarean delivery [3].

Mousa et al. conducted a meta-analysis to evaluate the role of misoprostol in postpartum hemorrhage and they concluded that oxytocin infusion is more effective and causes fewer side effects

when used as first-line therapy for the treatment of primary postpartum hemorrhage. The review suggests that among women who received oxytocin for the treatment of primary postpartum hemorrhage, adjunctive use of misoprostol confers no added benefit [4].

Other studies denied the effects of misoprostol in reducing postpartum hemorrhage in cesarean and asked obstetricians to stop its use in the management of postpartum hemorrhage at all [5].

Conclusion: Misoprostol use in Cesarean delivery should be discouraged as most studies reported lower efficacy compared to oxytocin. In addition, more side effects were associated with misoprostol use than for oxytocin. As regarding economic aspects, Oxytocin is a cheap and effective alternative in low resources countries.

Conflicts of interest

No conflicts of interests are present.

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