

A comparison between oxytocin and syntometrine for preventing postpartum hemorrhage

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Abstract

Introduction: The third and fourth stages of labor which involve the separation and expulsion of the placenta and an hour immediately following delivery are the two critical phases.

Many maternal deaths in the developing countries result from complications of the third stage of labor and postpartum hemorrhage. Active management of labor and use of oxytocic drugs can reduce postpartum hemorrhage. This study compares the effects of oxytocin and syntometrine in preventing postpartum hemorrhage which is an important problem causing maternal morbidity and mortality after delivery.

Materials and Methods: A clinical trial was designed to study 618 patients admitted to Zahedan Ghods Birth Center in 2001 for normal delivery. The patients were randomly divided into two groups. All pregnancies were singletons, normotensive (BP<140/90) and free from medical disease. After exiting the anterior shoulder of fetus, 5 IU of oxytocin in the first group and 0.5 mg ergometrine plus 5 IU of oxytocin in the second group was injected intramuscularly. The abnormal postpartum hemorrhage by obstetrician's estimation, the need for repeated oxytocic or other interventions and less than 100 mm Hg fall in systolic blood pressure was determined. The length of third stage was determined for all of the patients.

Results: Among the first group there were 20 cases (%6.47) with abnormal hemorrhage, compared to 8 cases (%2.58) in the second group. There was a significant difference between the two groups in postpartum hemorrhage ($p<0.05$) (using Chi-square test, CI=%95). There was no significant difference between two groups concerning the duration of third stage and the need for manual removal of placenta. The side effects were uncommon and the incidence of hypertension (BP>140/90) was not different between two groups.

Conclusion: Some studies do not recommend the use of syntometrine, believing that there is no clinical difference in the effectiveness of oxytocin and syntometrine, whereas syntometrine can cause hypertension and retained placenta. Our results similar to other researches show that syntometrine is more effective than oxytocin in preventing postpartum hemorrhage.

Key Words: Third stage of labor, Syntometrine, Oxytocin, Uterine atony, and Postpartum hemorrhage.

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