Summary

Although the incidence of hemorrhage related deaths has dramatically declined in industrialized countries during the 20th century, postpartum hemorrhage still remain as the leading cause of maternal mortality in developing countries. Worldwide, Postpartum hemorrhage is responsible for up to 125.000 maternal deaths per year and is associated with morbidity in 20 million women per year. Prophylactic use of an oxytocic agent after delivery of the infant has been shown to reduce the incidence of postpartum hemorrhage by 40%. There are potential problems with the parenteral use of oxytocin and methylergonovine maleate, such as the need of protection from light, requirement of refrigeration, the need of clean needles & syringes (An important consideration in the era of hepatitis and human immunodeficiency virus infection). On the other hand, methylergonovine maleate is ineffective in reducing postpartum hemorrhage when administered orally. Around 15% of women are denied the beneficial effects of syntometrine because of preexisting pregnancy induced hypertension. Syntometrine is associated with unpleasant side effects such as nausea and vomiting. Parenteral prostaglandins are potent agents that can be used in cases of severe postpartum hemorrhage. Misoprostol, marketed for peptic ulcer disease, has attracted attention following its widespread misuse by Latin American women to achieve abortion. Misoprostol offer several advantages over oxytocin or ergometrine including a shelf life of several years, stability at high temperature (it does not require refrigeration), buccal, sublingual, oral and rectal routes of administration (it does not require needle or syringe), minimal side effects such as nausea and vomiting and it can be administered to hypertensive patients. The

advantages of misoprostol make it a feasible drug to be used in the routine management of third stage of labor following vaginal delivery or C.S especially in developing countries.

This study was carried out on 200 parturients admitted to the Department of Obstetrics and Gynecology at Benha University Hospital during the period from July 2007 to April 2008.

The patients were randomly divided into two groups: Group A (100 patients) received 200 µg misoprostol + 10 IU of syntocinon in 500 ml normal saline at approximately 10ml/min, at delivery of the placenta and Group B (100 patients) received 10 IU of syntocinon in 500 ml normal saline at approximately 10ml/min, at delivery of placenta.

All patients had spinal anesthesia. There were no significant differences between the two groups regarding the clinical data as patient age, gestational age and fetal birth weight.

There was also no significant difference between the two groups regarding the initial Hb%.

Indications for C.S in both groups were greatly similar. There was no significant difference in the duration of surgery among the two groups.

Intraoperative blood loss was statistically not different between the two study groups.

Intraoperative need for additional uterotonics was statistically different among the two study groups (significantly lower in the misoprostol group).

Hb% difference between preoperative and 24 hours postoperative was significantly different in our study between the two groups (Significantly lower in the misoprostol group).

The estimated postoperative blood loss in the first 24 hours after C.S was significantly different among the two study groups (Significantly lower in the misoprostol group).

There were no significant differences between the two groups regarding side effects as nausea, vomiting and diarrhea but statistically significant differences were found as regarding shivering, fevers& metallic taste being greater in the misoprostol group with 2 cases in the this group having high fevers $\geq 38.5^{o}C$.

The results of this study concluded that adding 200 ug of buccal misoprostol to intravenous oxytocin was effective in decreasing uterine atony, reducing the need for additional uterotonic agents, preventing the occurrence of postpartum hemorrhage and minimizing postoperative blood loss in cesarean sections done in low risk Patients.