

## **ABSTRACT:**

**Introduction:** The present day obstetrics calls for induction of labor for a myriad of obstetrical, medical, and fetal indications. We should only induce labor when we are sure that we can do better. The prostaglandins (PGs) and antiprogesterones have major role in labor induction.

**Aim:** The aim is to evaluate the efficacy and safety of oral mifepristone and endocervical PGE2 gel in labor induction.

**Methods:** To compare the safety, efficacy and fetomaternal outcome following induction of labour with oral mifepristone and endocervical PGE2 gel. 200 antenatal women were selected among which 100 women received 200 mg oral mifepristone and 100 women received 0.5 mg endocervical PGE2 gel, if required repeat gel at interval of 6hrs max.of 3 doses is kept in 24hours.

**Results:** 71% (44% primigravida and 27% multigravida) had favourable Bishop score in mifepristone group whereas only 62%(37% primigravida and 25% multigravida) in PGE2 gel group.Oxytocin augmentation is needed in 53(77.94%) primigravida in mifepristone group and 44(78.51%)primigravida in PGE2 gel group who delivered vaginally. Duration of II and III stage of labour shorter in miferpristone group.Cesarean section rate was 18% in mifepristone group whereas 27% in PGE2 gel group.Blood loss was less in mifepristone group.

Neonatal complications and neonatal admissions were lesser in mifepristone group. Drug administration to delivery interval shorter with PGE2 group. Maternal complications were similar in both groups. The outcome of induction in this study reveals that the mifepristone was successful in 82% in achieving vaginal delivery whereas PGE2 gel was successful in 73%.

**Conclusion:** Oral mifepristone is very safe and an effective drug for preinduction cervical ripening. It is more effective in multigravida than primigravida.

**Key words:** Bishop score, Cervical ripening, Favorability, Induction of labor, Mifepristone, Oxytocin, Prostaglandin E2 gel