SUMMARY

Misoprostol is a stable inexpensive PGE1 analogue. It is a potent uterotonic and cervical ripening agent. It is more cost-effective than commercial dinoprostone preparations for labor induction for those with unfavorable cervix. It is known to be given orally, vaginally for induction of labor, however many clinical studies have found that vaginal route is more effective, but it carries more risk for hyperstimulation than oral route. Recently the sublingual route was developed it is assumed to be as effective as vaginal route (same bioavailability) and as safe as oral route (has no direct effect on the cervix and uterus) and also avoids GIT and hepatic metabolism.

The purpose of this study is to compare the efficacy (as regard labor and neonatal outcome) and safety (as regard side effects and complications) between oral, vaginal and sublingual misoprostol (50 ug) for induction of term labor, taken for maximum four doses, four hours apart.

Ninety, term pregnant women, with indication for induction of labor were shared in this study. They were assigned to receive 50 mcg misoprostol either orally, vaginally or sublingually (**30** women for each route) to be repeated every four hours if needed.

The induction-to-delivery interval was significantly shorter in both sublingual and vaginal routes compared with the oral one. No significant difference exists between sublingual and vaginal routes.

No hyperstimulation rate in the oral group. Although there were more hyperstimulation and instrumental delivery cases in the vaginal group than sublingual group, they were statistically insignificant.

There was no significant difference as regards neonatal and maternal adverse outcomes among the three groups.

So, fifty micrograms of sublingual misoprostol every four hours has the same efficacy and seems safer for induction of term labor, as compared with vaginal route, and It is more effective than 50 mcg of oral misoprostol with no difference in safety profile.