

SUMMARY

- The objective of the present study was to throw a light upon the usefulness of the Dilapan cervical dilator as a cervical ripening and dilating agent in second trimester abortion compared with one of the most recent prostaglandin analogues, misoprostol.
- 30 patients with indications for second trimester termination of pregnancy were selected and randomly classified into two groups (each = 15)
- Dilapan dilator was inserted into the cervical canal (one or two devices at maximum were used) in the first group, and vaginal misoprostol (one tablet = 200 mcg every 6 hours) was used in the second group.
- The present study shows that both Dilapan and Misoprostol tablets are effective methods for cervical ripening in termination of pregnancy.
- The ripening effect of Dilapan can be explained by its osmotic effect on the cervix, its effect on the cervical collagen and induction of an inflammatory challenge on the decidua. While, misoprostol may induce cervical ripening action by increasing the collagenase enzymes causing disintegration and dissolution of collagen (these results are supported by the proline uptake studies done on the pretreated cervix).
- Although in the presented study the differences in the mean of the total induction time between the two groups was insignificant (probably due to the small number of subjects). Yet the Dilapan group had more

advantage regarding effect on the cervical dilatation, as the dilating effect of Dilapan is predictable within the determined time. So it can be advised to use the Dilapan before any designed surgical evacuation in second trimester abortion especially with absence of any significant side effects or complications with the use of Dilapan and if the Dilapan was used out patiently and evacuation was done under local anaesthesia, hospitalization time, maternal morbidity and mortality due to second trimester abortion possibly will be much reduced.

- On the other hand misoprostol had more advantage regarding the effect on the uterus (possibly due to its direct uterotonic action) which will decrease the need for surgical evacuation especially with unexperienced gynecologists and in advanced gestational age with few tolerable side effects (20%), limited need of oxytocin (35.7% among the 15 cases) and infrequent need for surgical evacuation (35.7% among the 15 cases) with high success rate (93.3% within 48 hours).
- There is also the major practical advantage of misoprostol is being of low cost and used vaginally through non invasive route.