

Mechanical Induction of Labour in Women with scarred uterus - a retrospective audit showing efficacy of mechanical agent



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Objective

There has been a steady increase in rate of induction of labour (IOL) in the United Kingdom. Careful consideration needs to be given to IOL in women with previous caesarean section (CS), in order to minimise the risk of uterine rupture. Following the NICE guidance in 2021 for promoting the use of mechanical IOL in women with scarred uteri, cervical dilating agent Dilapan S was introduced in May 2022.

The objective of this index audit was to assess obstetric outcomes of women with a history of previous CS, undergoing mechanical IOL with Dilapan.

Dilapan-S

It is a tiny rod made from synthetic hydrophilic material (Aquacryl 90) attached to a polypropylene handle. The device is inserted into the cervical canal and left overnight (12-15hours).

Mechanism of Action-

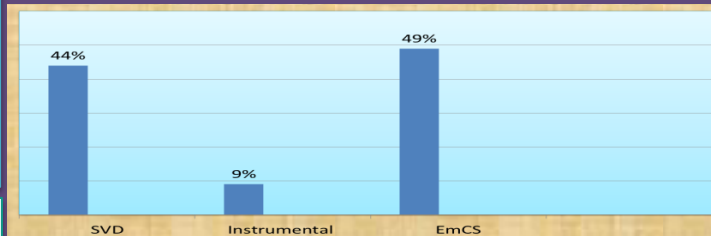
- Dilapan gradually dilates the cervix by absorbing local fluids and promotes cervical dilatation.
- Stretching of cervix can release prostaglandin that also helps in cervical softening

Methods

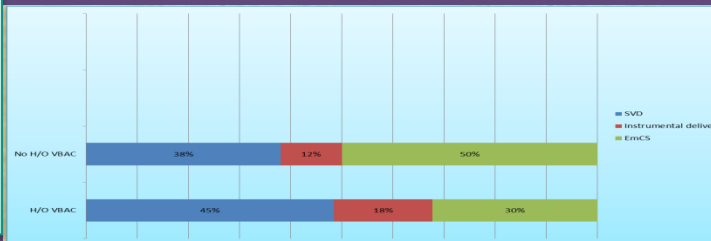
- Retrospective Study
- Fifty-one women were included with H/o one previous caesarean section at term, Singleton pregnancy and Cephalic presentation

Results

47% women achieved a successful vaginal delivery, 9% had an instrumental delivery and 44% emergency caesarean section. Women who had previously had a vaginal delivery had a higher rate of achieving a subsequent vaginal birth (45% vs 37%) and instrumental delivery (18% vs 12%).



MOD after Dilapan Insertion

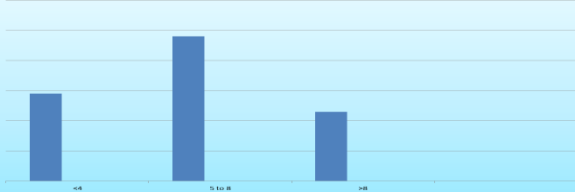


h/o VBAC compared with delivery

Women aged more than 35 years had a higher rate of ventouse delivery (54% vs 37%) and caesarean section (15% vs 13%), compared to those under the age of 35.

Bishop Score after Removal of dilapan- majority(48%) of cases was 5-8.
10% of patients needed proppess and 4% needed Cook's Balloon as 2nd method of IOL.

Bishop Score after removal of Dilapan



Caesarean section was indicated in majority of women due to failure to progress. Syntocinon augmentation was only used in 20% of the women. The rate of achieving a vaginal delivery was greater if it occurred within 48 hours (47% vs 22%). No adverse foetal or maternal outcomes were noted.

Conclusions

With appropriate training Dilapan can be used safely. Based on the data above, its safety has been demonstrated in the absence of any adverse fetal and maternal outcomes. Consideration needs to be given to regular training of midwives and obstetricians and possible extension of its use to women requiring IOL for other reasons in unscarred uterus.

Reference

- <https://www.ommegaonline.org/article-details/Cervical-Ripening-with-an-Osmotic-Dilator-Dilapan-S-in-Term-Pregnancies/543>
- https://www.researchgate.net/publication/223295643_Induction_of_labour