

EFFECT OF HYGROSCOPIC DILATOR (DILAPAN-S®) ON CERVICAL RIPENING PRIOR INDUCTION OF LABOUR

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Objectives: To analyze the effect of Dilapan-S® (hygroscopic dilator) on pre-induction (cervical ripening prior to induction) of labor using standardized protocol.

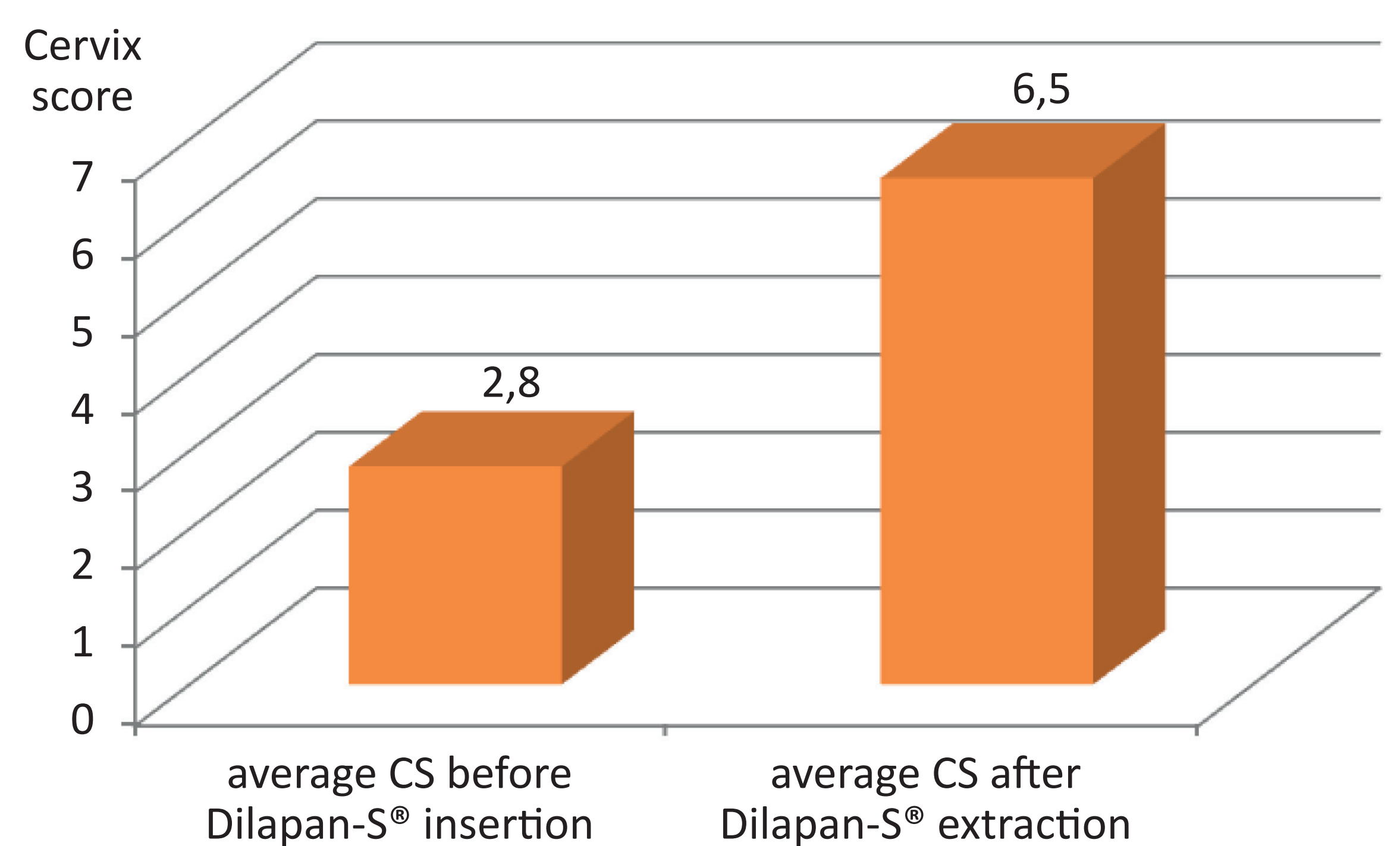
Methods: This is a prospective study. Women with singleton pregnancies and unfavorable cervix score (CS < 5) indicated for delivery at = or > 24 weeks of gestation were included. The standardized protocol was overnight (9–15 hours) insertion of 2-4 pieces of Dilapan-S® into the cervical canal. After extraction of Dilapan-S®, the CS was re-evaluated. The results were analyzed using statistical methods.

Results: Dilapan-S® was used in 92 women. There was a significant increase in cervix score before and after insertion of Dilapan-S® (2.8 (0–4); and 6.5 (3–10) respectively). After extraction of Dilapan-S® the CS in 55 women was above 5 and their delivery could be induced; in 31 women the CS remained under 5 and another method (dinoprostone vaginal suppository) of cervical ripening had to be used. Six women progressed to birth during insertion of Dilapan-S®. Caesarean section was necessary in 33% women and 67% of women gave birth vaginally.

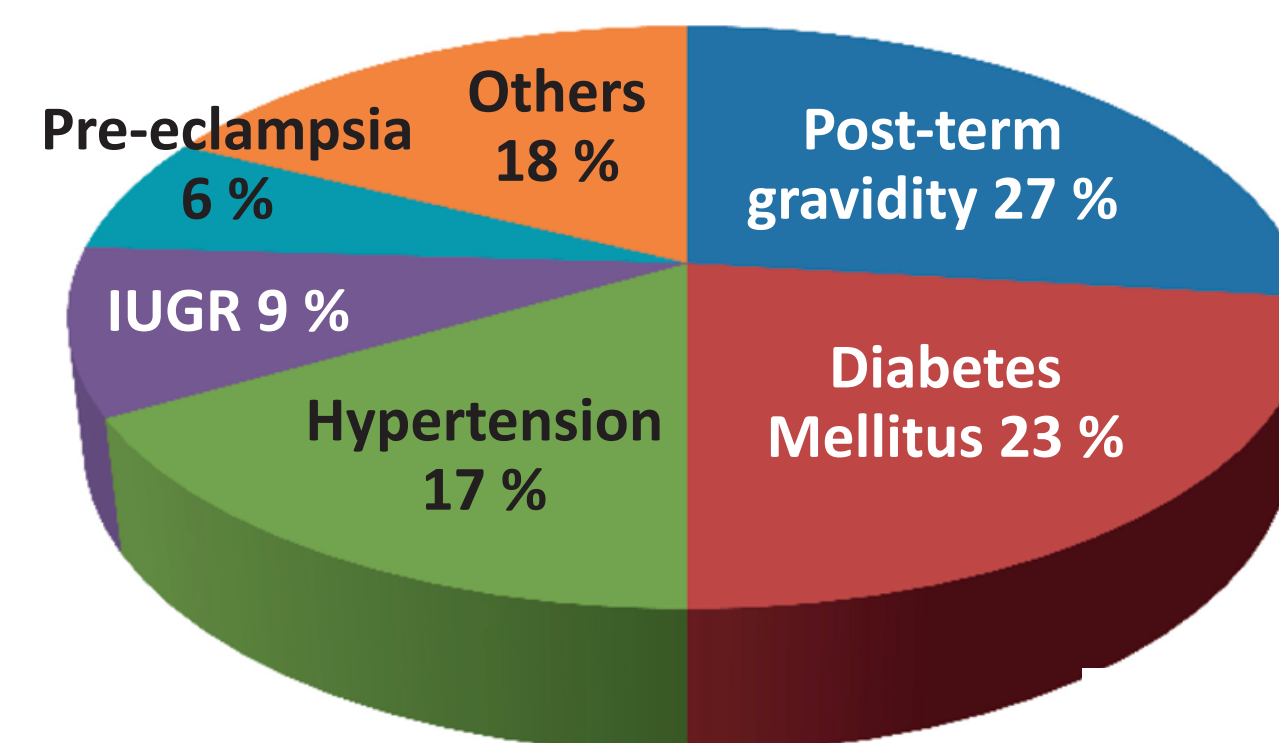
Benefits of Dilapan-S®:

- No association with the occurrence of excessive uterine contractions
- Dilatation is gentle as well as predictable
- No undesirable pharmacological effects
- Easy insertion
- Very well accepted by patients

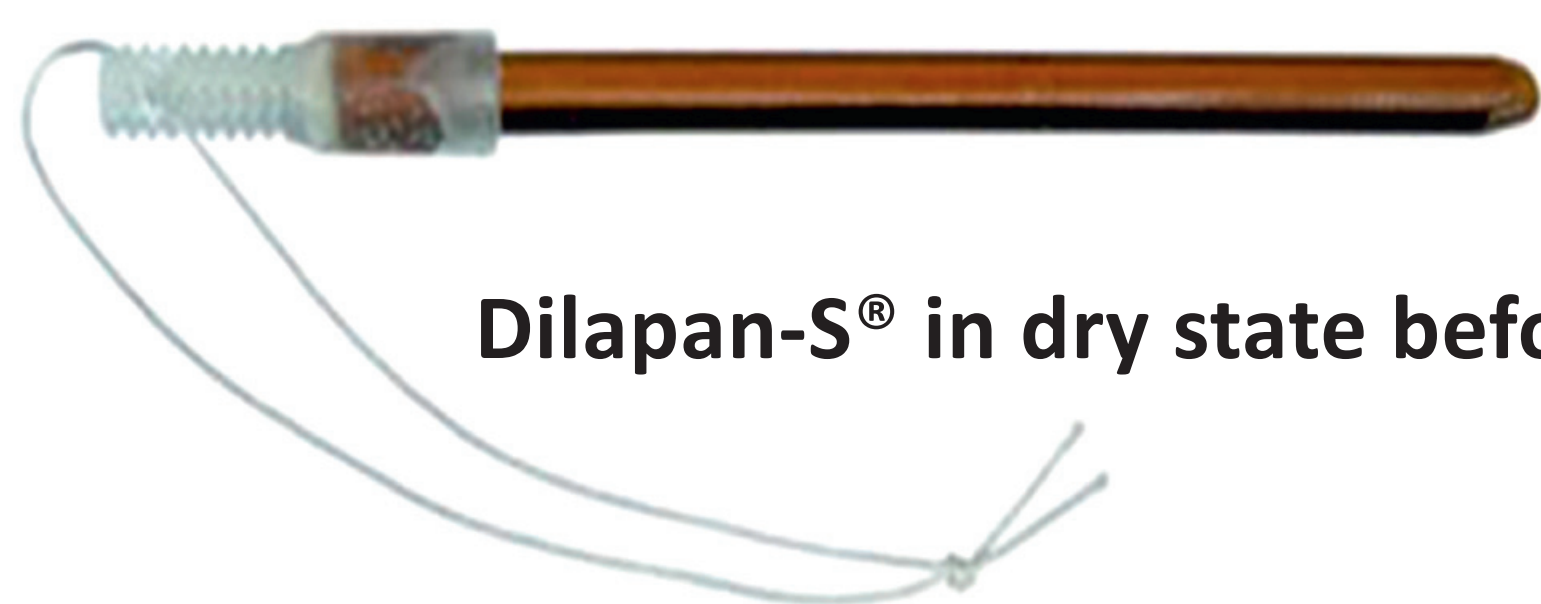
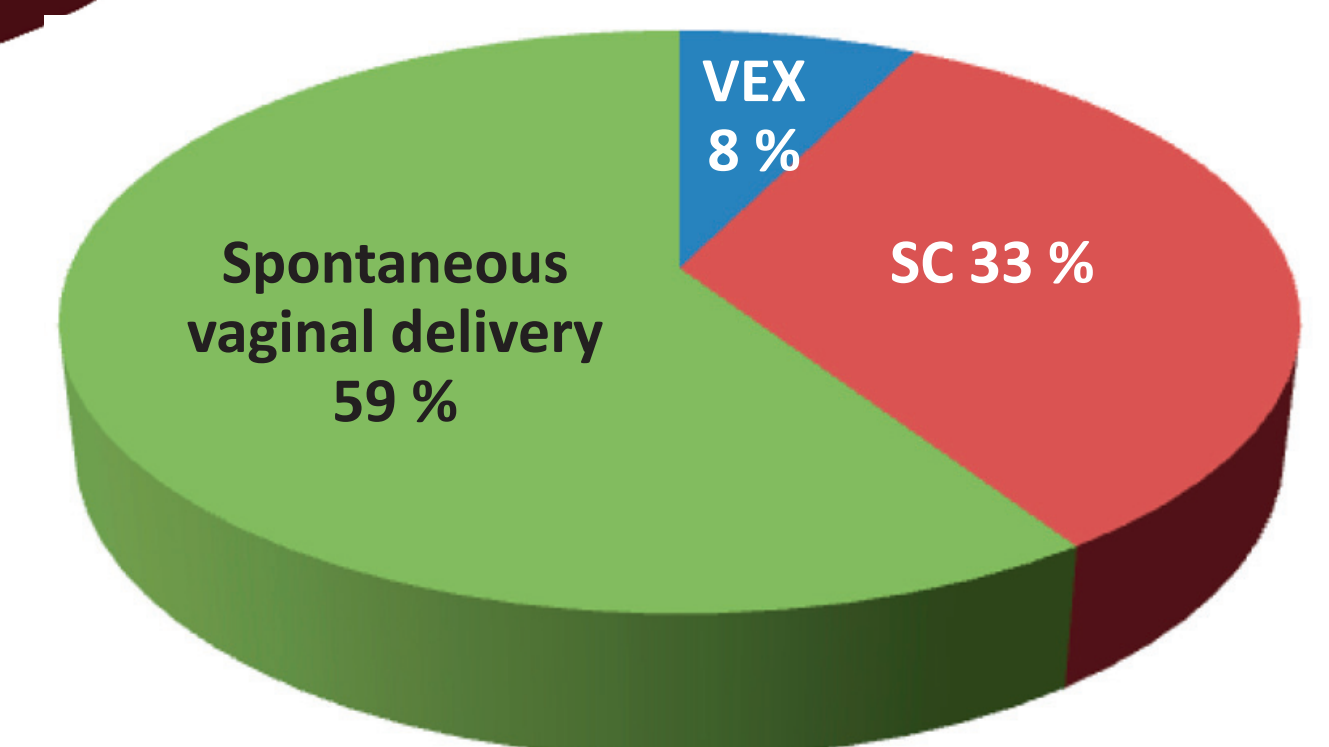
Increase of Cervix score (CS) after pre-induction with Dilapan-S®



Indications for induction of labor



Mode of delivery



Dilapan-S® in dry state before application



Dilapan-S® after swelling

Conclusion: The insertion of Dilapan-S® into the cervical canal is an effective method of cervix ripening prior induction of delivery.

Discussion: Dilapan-S® is a hydrophilic dilator which increases its volume by absorbing fluids and gradually dilates the cervix. It also stimulates the release of endogenous prostaglandins which leads to degradation of collagen fibers. Due to this mechanism of action, the effect is gentle as well as predictable. The use of Dilapan-S® is not associated with uterine hyperstimulation. The dilation is accompanied by a minimum of pain and does not have any undesirable pharmacological effects. It is also well accepted by women. In another multicentre prospective study, which was performed in Czech Republic in women ≥ 36 weeks of pregnancy, mean CS of ≥ 5 points after extraction of Dilapan-S® was reached totally in 83 (86,46%) from 96 included females and 72% of women gave birth vaginally. Our obstetric centre is specialized to manage more risky births. Therefore our inclusion criterion of delivery at ≥ 24 weeks of gestation could cause the difference in rate of women with CS above 5 after pre-induction and lower rate of vaginal deliveries from population of women who gave birth at term.