



Pre-induction of labor with 200µg misoprostol vaginal insert

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Objective

Induction of labor is used increasingly more often (20-40% of pregnancies). Induction of labour is indicated when the risk of pregnancy continuation for mother and/or fetus exceeds the risk of delivery. The success rate depends on the cervix maturity, which is assessed usually with a modified Bishop score. The aim of this study is to analyze the effectiveness and safety of preinduction of labor with 200µg misoprostol vaginal insert (MVI).

Methods

The study group consists of 100 pregnant women admitted to Obstetrics Clinic in Bydgoszcz, Poland, between May 2015 and January 2017 who received pre-induction with MVI. The study group was subdivided into primigravida and multiparous women. We assessed the following parameters: indications for labour induction; time from vaginal insert of misoprostol until delivery; the rate of vaginal delivery during 12, 24 and 48 hours; rate of caesarean section including indications; adverse events such as hyperstimulation, tachysystole, fetal heart rate abnormalities and Apgar score.

Results

MVI was used in a total of 100 patients with Bishop score 4 or less. The primigravida patients constitute 69% of the study group. The most common indication for induction was pregnancy at full-term complicated by gestational diabetes. The average time of induction was 14 hours and 20 minutes to all delivery, 14 hours and 45 minutes to vaginal deliveries and it was shorter by about 2 hours for multiparas. The most common delivery route in the study group was vaginal delivery (67%). The primigravida patients had a higher caesarean rate compared to multiparous women (40. 58% vs 16. 13%). Above 90% of multiparas and nearly 80% of primigravidas delivered within 24 hours from pre-induction. We observed rare cases of uterine tachysystole (2%) and hyperstimulation (2%). Fetal heart rate abnormalities were observed in 43%, but cesarean section rate was lower than 40%. Average Apgar score was 9, 00.

Conclusion

Misoprostol vaginal insert Misodel® 200µg is an effective pre-induction method, especially in case of immature cervix (Bishop score <4). MVI does not increase the caesarean section rate and has no adverse effect on the neonatal outcome.