

Comparison of Two Forms of Dinoprostone: Propess and Prostin for Induction of Labor

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Background: Induction of labor (IOL) aims to achieve a successful vaginal delivery. Dinoprostone is a synthetic prostaglandin (PGE₂) which works on the connective tissue stroma of the cervix and makes it favorable for normal labor.

Objective: To compare the two variants of PGE₂: intra-vaginal dinoprostone vaginal suppository (Prostin E2) and 24 hours controlled-release vaginal dinoprostone pessary (Propess) for successful normal vaginal delivery.

Setting: Obstetrics and Gynecology Department, Bahrain Defence Force Hospital, Bahrain.

Design: A Retrospective Study.

Method: This study included all pregnant women who had induction of labor from January 2018 to June 2018. A total of 322 women with a singleton pregnancy, fetal cephalic presentation and bishop score ≤ 4 were admitted for induction of labor. Fifty-eight (18%) patients received 24-hours 10 mg controlled-release Propess and 264 (81.9%) received repeated doses of 2 mg Prostin E2 vaginal tablets.

Result: A high incidence of cesarean delivery in the Propess group 20/58 (34.5%) compared to 45/264 (17%) in the Prostin group was found, P-value of 0.002. There was no difference in the incidence of hyperstimulation, need for oxytocin or fetal distress in labor. Shorter induction-to-delivery interval was obtained with Propess, 19 hours compared to 23.5 hours for Prostin E2, but the difference was not statistically significant. Data was analyzed using StatsDirect software, P-value of less than 0.05 was considered statistically significant.

Conclusion: IOL with slow release dinoprostone is associated with increased cesarean section rate compared to Prostin.