Evaluation of Non-Pharmacological Method-Transcervical Foley Catheter and Misoprostol to Intravaginal Misoprostol for Preinduction Cervical Ripening

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Abstract : Induction of labour is a common obstetrical intervention. Around 1 in every 4 patient undergo induction of labour for different indications Purpose: To study the efficacy of the combination of Foley bulb and vaginal misoprostol in comparison to vaginal misoprostol alone for cervical ripening and induction of labour. Methods: A prospective randomised study was conducted on 150 patients with term singleton pregnancy admitted for induction of labour. Seventy-five patients were induced with both Foley bulb, and vaginal misoprostol and another 75 were given vaginal misoprostol alone for induction of labour. Both groups were then compared with respect to change in Bishop score, induction to the active phase of labour interval, induction delivery interval, duration of labour, maternal complications and neonatal outcomes. Data was analysed using statistical software SPSS version 11.5. Tests with P,.05 were considered significant. Results: The two groups were comparable with respect to maternal age, parity, gestational age, indication for induction, and initial Bishop scores. Both groups had a significant change in Bishop score $(2.99 \pm 1.72 \text{ and } 2.17 \pm 1.48 \text{ respectively with statistically significant difference (p=0.001 S,$ 95% C.I. -0.1978 to 0.8378). Mean induction to delivery interval was significantly lower in the combination group (11.76 ± 5.89) hours) than misoprostol group (14.54 ± 7.32 hours). Difference was of 2.78 hours (p=0.018,S, 95% CI -5.1042 to -0.4558). Induction to delivery interval was significantly lower in nulliparous women of combination group (13.64 ± 5.75 hours) than misoprostol group (18.4 ± 7.09 hours), and the difference was of 4.76 hours (p=0.002, S, 95% CI 1.0465 to 14.7335). There was no difference between the groups in the mode of delivery, infant weight, Apgar score and intrapartum complications. Conclusion: From the present study it was concluded that addition of Foley catheter to vaginal misoprostol have the synergistic effect and results in early cervical ripening and delivery. These results suggest that the combination may be used to achieve timely and safe delivery in the presence of an unfavorable cervix. A combination of the Foley bulb and vaginal misoprostol resulted in a shorter induction-to-delivery time when compared with vaginal misoprostol alone without increasing labor complications.

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Keywords : Bishop score, Foley catheter, induction of labor, misoprostol

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