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Use of Misoprostol in Pregnancy Termination in the Third Trimester: Oral versus Vaginal Route

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Abstract : Introduction: Intra-uterine death is a common problem in obstetrical practice, and can lead to complications if left to resolve spontaneously. The cervix is unprepared, making inducing of labor difficult. Misoprostol is a synthetic prostaglandin E1 analogue, inexpensive, and is presented valid thanks to its ability to bring about changes in the cervix that lead to the induction of uterine contractions. Misoprostol is quickly absorbed when taken orally, resulting in high initial peak serum concentrations compared with the vaginal route. The vaginal misoprostol peak serum concentration is not as high and demonstrates a more gradual serum concentration decline. This is associated with many benefits for the patient; fast induction of labor; smaller doses; and fewer side effects (dose-depended). Mostly it has been used the regime of 50 µg/4 hour, with a high percentage of success and limited side effects. Objective: Evaluation of the efficiency of the use of oral and vaginal misoprostol in inducing labor, and comparing it with its use not by a previously defined protocol. Methods: Participants in this study included patients at U.H.O.G. 'Koco Gliozheni', Tirana from April 2004-July 2006, presenting with an indication for inducing labor in the third trimester for pregnancy termination. A total of 37 patients were randomly admitted for birth inducing activity, according to protocol (26), oral or vaginal protocol (10 vs. 16), and a control group (11), not subject to the protocol, was created. Oral or vaginal misoprostol was administered at a dose of 50 µg/4 h, while the fourth group participants were treated individually by the members of the medical staff. The main result of interest was the time between induction of labor to birth. Kruskal-Wallis test was used to compare the average age, parity, women weight, gestational age, Bishop's score, the size of the uterus and weight of the fetus between the four groups in the study. The Fisher exact test was used to compare day-stay and causes in the four groups. Mann-Whitney test was used to compare the time of the expulsion and the number of doses between oral and vaginal group. For all statistical tests used, the value of $P \leq 0.05$ was considered statistically significant. Results: The four groups were comparable with regard to woman age and weight, parity, abortion indication, Bishop's score, fetal weight and the gestational age. There was significant difference in the percentage of deliveries within 24 hours. The average time from induction to birth per route (vaginal, oral, according to protocol and not according to the protocol) was respectively; 10.43h; 21.10h; 15.77h, 21.57h. There was no difference in maternal complications in groups. Conclusions: Use of vaginal misoprostol for inducing labor in the third trimester for termination of pregnancy appears to be more effective than the oral route, and even more to uses not according to the protocols approved before, where complications are greater and unjustified.

Keywords : inducing labor, misoprostol, pregnancy termination, third trimester
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