## Prospective Cohort Study on Sequential Use of Catheter with Misoprostol vs Misoprostol Alone for Second Trimester Medical Abortion

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Abstract: Background: A variety of techniques for medical termination of second-trimester pregnancy can be used, but there is no consensus about which is the best. Even though most evidence suggests the combined use of intracervical Foley catheter and vaginal misoprostol is safe, effective, and acceptable method for termination of second-trimester pregnancy, which is comparable to mifepristone-misoprostol combination regimen with lower cost and no additional maternal risks. The use of mifepristone and misoprostol alone with no other procedure is still the most common procedure in different institutions for 2nd-trimester pregnancy. Methods: A cross-sectional comparative prospective study design is employed on women who were admitted for 2nd-trimester medical abortion and medical abortion failed or if there was no change in cervical status after 24 hours of 1st dose of misoprostol. The study was conducted at St. Paulose Hospital Millennium Medical College. A sample of 44 participants in each arm was necessary to give a two-tailed test, a type 1 error of 5%, 80% statistical power, and a 1:1 ratio among groups. Thus, a total of 94 cases, 47 from each arm, were recruited. Data was entered and cleaned by using Epi-info and analyzed using SPSS version 29.0 statistical software and was presented in descriptive and tabular forms. Different variables were cross-tabulated and compared for significant differences and statistical analysis using the chi-square test and independent t-test, to conclude. Result: There was a significant difference between the two groups on induction to expulsion time and number of doses used. The mean  $\pm$  SD of induction to expulsion time for those used misoprostol alone was 48.09  $\pm$ 11.86 and those who used trans-cervical catheter sequentially with misoprostol were 36.7 ±6.772. Conclusion: The use of a trans-cervical Foley catheter in conjunction with misoprostol in a sequential manner is a more effective, safe, and easily accessible procedure. In addition, the cost of utilizing the catheter is less compared to the cost of misoprostol and is readily available. As a good substitute, we advised using Trans-cervical Catether even for medical abortions performed in the second

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