Objective
Preterm delivery is a significant complication of pregnancy and has a major role in neonatal mortality and morbidity. Management of preterm labor and prevention of preterm delivery in order to lower these risks have always been a concern. The purpose of this study was to compare the effect of nifedipine and nitroglycerin (NG) dermal patch for taking control of preterm labor.

Methods
The study was performed as a randomised clinical trial on women who had been admitted in the hospital diagnosed with preterm labor. In one group, nitroglycerin (NG) dermal patch and in the other group, nifedipine were prescribed. The 2 groups were followed up to delivery and were compared according to arrest of labor for 2 hours, 48 hours, 7 days, gestational age at the time of delivery and their adverse effects. The primary outcome was to postpone delivery for 48 hours in order to have enough time for prescribing corticosteroids.

Results
There were no significant difference according to age, BMI, primary Bishop Score, gestational age at the time of tocolytic therapy, history of abortion, vaginal or cesarean delivery and preterm labor, between the two groups. Significantly more women in the NG group had delivery postponed for 2 hours [59(98. 3%) VS 48(80%), p=0. 001], for 48 hours [52 women (86. 7%) VS 41(68. 3%), p=0. 016] and also, for 7 days [47(78. 3%) VS 37 (61. 7%), p = 0. 046], compared to the nifedipine group. Gestational age at the time of delivery was higher in NG group (35. 6 ± 1. 9 VS 34. 3 ± 2. 05 weeks, p=0. 155), however, it was not statistically significant. Apgar score of minute 5, (p = 0. 03) and neonatal weight (p = 0. 04), were more and cesarean deliveries, NICU admission and duration of NICU stay were less in NG group. Adverse effects were similar, minimal and negligible in both groups.

Conclusion
NG patch is a more effective method for preterm labour control than nifedipine, with minimal side effects.