

## **Effectiveness and Safety in keeping the intra uterine Foley catheter for 24 hours versus 48 hours for induction of labor: A Randomized Controlled Trial**

**Introduction:** Induction of labour is the commonest obstetric intervention. A survey found that Sri Lanka has high percentage of IOL (35.5%).

**Objective:** To compare the safety and effectiveness of keeping the intrauterine Foley catheter for 24 hours versus 48 hours for induction of labour.

**Method:** A randomized control study was carried out at professorial unit, De Soysa Hospital for Women, Colombo. Participants with singleton cephalic presentation with intact membranes and bishops' score of 5 or less at POG 40+5 were allocated to 24 hours (n=107) and 48 hours (n=94) intra uterine Foley catheter induction groups. CRP level measurement and Papanicolaou smear for bacterial vaginosis were carried out in both groups before Foley induction. Foley induction was done with aseptic precautions. Papanicolaou smear for bacterial vaginosis was taken and CRP level was measured 20 hours following completion of Foley induction in both groups. Proportions of Spontaneous onset of labour, length of active labour and caesarean section rate were compared in both groups. Placental histology for evidence of chorioamnionitis was carried out in those who experienced spontaneous onset of labour in both groups. Apgar scores at 1min, 5min and 10 min, incidence of fever in the neonate and SCBU admissions were compared in both groups.

**Results:** Thirty five women (32.7%) experienced spontaneous onset of labour in 24 hours group, compared to 54 (57.4%) in 48 hours group ( $p = <0.001$ ,  $OR=2.78$   $CI=1.56$  to  $4.93$ ). Mean length of active labour was 7.48 hours in 24 hours group and 7.69 hours in 48 hours group. Fifteen (16%) were delivered by caesarean section in 48 hours group compared to 15 (14%) were delivered by caesarean section in 24 hours group. Ten (10.3%) in 24 hours group, compared to 6 (6.7%) in 48 hours group were found positive for bacterial yaginosis in post induction Papanicolaou smear, which

was previously negative. Mean CRP level increase was 4.08IU in 24 hours group compared to 3.91IU in 48 hours group. Among placentae that were evaluated for chorioamnionitis, 5.7% placentae in 24 hours group and 11.1% placentae in 48 hours group were positive for chorioamnionitis. Mean Apgar scores were 9.12 in 1 minutes and 9.93 in 5 minutes in 24 hours group, compared to 8.99 in 1 minutes and 9.98 in 5 minutes in 48 hours group. In 24 hours group 8.4% babies and in 48 hours group 8.5% babies were found to have pyrexia. Sixteen babies (15%) in 24 hours group, compared to 12 babies (12.8%) in 48 hours group were admitted to SCBU.

**Conclusions and Recommendations:** It was observed that there is statistically significant difference in the onset of spontaneous labour when the Foley catheter is kept in for 48 hours compared to 24 hours. All other parameters evaluated, including infectious morbidity and neonatal outcome showed no significant differences.

**Key words:** Foley Catheter, Induction, safety, effectiveness