

ABSTRACT

Introduction:

Membrane sweeping is a common method of pre induction cervical ripening method. Membrane sweeping is not possible all the time where the cervix is highly unfavorable. In such a situation cervical massage is being recommended. Number of clinical trials has been done on membrane sweeping and cervical massage is an effective method of cervical ripening and prevention of post term pregnancies, however the effectiveness of cervical massage over the membrane sweeping has not been researched.

Objective:

1. To compares the effectiveness of cervical massage and membrane sweeping for pre-induction cervical favorability in postdated pregnancies.
2. To evaluates the side effects of this interventions.

Methods:

A randomized controlled trial, A total of 160 singleton uncomplicated pregnant women at 40 week +4 days with cephalic presentation, with an unfavorable cervix whose Modified Bishop's Score (MBS) is less than 4 were selected. Participants were randomly assigned to cervical massage group, membrane sweeping group and control group (no intervention). The favorability of cervix for induction of labour, measured by change in the modified bishop's score in 48 hours of intervention. Possible complications such as rupture of membrane, intrapartum infection, postpartum infection and neonatal morbidity were also assessed.

Results:

There were no significant differences in the mean age and MBS at recruitment in the primigravidae and multigravidae, between the three study groups. There

was significant increase in mean MBS after intervention in cervical massage group (in primigravidae 6.4, 95% CI 4.8-8.0, in multigravidae 7.2, 95% CI 6.1-8.4) and membrane sweeping groups (in both 7.6, 95% CI 6.2-9.0) compared to control group (in primigravidae 5.3, 95% CI 4.0-6.5, in multigravidae 4.8, 95% CI 3.8-5.8) p=0.04 in primigravidae and p=0.003 in multigravidae. Adverse effects were similar in each group except for CTG abnormalities which was reported more in control group. Other obstetric outcome and indicators for neonatal morbidity were similar in each group.

Conclusion:

Cervical massage and membrane sweeping were showed significant effect on improvement of the MBS at term as pre induction cervical ripening method. This effect was more marked in multigravidae compared to primigravidae. It was not associated with any significant neonatal morbidity and mortality or maternal complications. It also reduced the requirement of vaginal PGE2 15% in cervical massage group and membrane sweeping group compared with the control group.

Ethical approval was taken from the Ethical Review Committee, Faculty of Medicine, University of Ruhuna. The study is registered in the Sri Lanka Clinical Trial registry.