Maternal activity level in patients with preterm premature rupture of membranes: A Prospective Observational Cohort Study

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Abstract

Objective: To evaluate the level of maternal physical activity effect on the perinatal outcomes of women with preterm premature rupture of membranes (PPROM)

Study Design: This is a pilot, prospective, observational multicenter cohort study. We approached patients admitted between 23 0/7 weeks to 32 0/7 weeks gestation with confirmed PPROM between January of 2014 and June of 2017. All patients received corticosteroids and latency antibiotics. Enrollment was done on third day of admission. Delivery occurred at 34 to 36 weeks post gestation induction of labor or cesarean section, electronically induced or sooner if chorioamnionitis was diagnosed or spontaneous preterm labor occurred. Patients were provided a pedometer to wear for the duration of their antepartum course and they were allowed maternal activity at lib and were encouraged to go to the physical therapy gymnasium.

Results: We enrolled 32 women. We stratified them in two groups: Low activity as less than 500 step a day versus 500 steps a day. No maternal or fetal adverse outcomes were identified. The average steps per day showed a significant association with prolongation of latency from PPROM to delivery in this study without adverse events.

Conclusion: Maternal activity more than 500 steps a day showed a significant association with prolongation of latency from PPROM to delivery in this study without adverse events.