

Original Paper

## Effect of betamethasone on neonatal respiratory failure in late preterm pregnancies

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### Abstract

**Background and Objective:** Respiratory failure is one of the most important respiratory problems in premature infants. Several studies have shown the efficacy of corticosteroids in gestational age less than 34 weeks. This study was done to determine the effect of prenatal betamethasone injection during 34 to 36 weeks of pregnancy on the prevention of newborn respiratory failure.

**Methods:** This clinical trial study was conducted on 140 women with risk of preterm labor at 34 to 36 weeks of gestational age. Women in interventional group were received betamethasone 12 mg IM (2 doses, 12 hours apart). Women in control group were received the same volume of normal saline. Sex and birth weight, respiratory distress syndrome, requiring hospitalization in neonatal intensive care units and require respiratory support were recorded for each newborn.

**Results:** No significant difference was seen in sex and weight of newborns between two groups. The percent of newborns with respiratory distress syndrome in the intervention and control groups was 12.5% and 22%, respectively. This difference was not significant. No significant difference was seen in the need to respiratory support, hospitalized in the NICU between intervention and control groups.

**Conclusion:** Administration of betamethasone in 36-34 weeks of pregnancy has no effect on the prevention of respiratory failure in preterm infants.

**Keywords:** Neonatal respiratory distress syndrome, Betamethasone, Preterm labor

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Received 26 Jul 2014

Revised 2 Jun 2015

Accepted 2 Jun 2015