



Does a single dose of dexamethasone reduce respiratory complications in late preterm births?

Charintip S, Adisak W, Tongta N, Chamnan T

Department of Obstetrics and Gynecology, Thammasat University Hospital, Klongluang, Pathumthani, Thailand

Objective

To evaluate the value of single dose dexamethasone in reducing respiratory complications in late preterm births.

Methods

A prospective non-randomized controlled study was conducted in the labor ward at Thammasat University Hospital. Patients admitted for late preterm labor (34w-36w+6d) were recruited. They were divided into 2 groups: treatment group where patients received at least one dose of dexamethasone and a control group where patients did not receive treatment. The neonatal respiratory outcomes were recorded including grunting, retraction, tachypnea, respiratory distress syndrome and/or ventilation support.

Results

A total of 248 patients were admitted for reterm labor, 111 pregnant received at least one dose of dexamethasone and 137 pregnant did not treatment. Most of pregnant women in both groups were nulliparous and did not have risk factors of preterm delivery. The background characteristics were comparable in both groups including the age, BMI, parity, gestational age at diagnosis and the number of antenatal visits. There rate of respiratory complications in the treatment group was lower than in the control group but this difference was not statically significant (22. 7% vs 32. 4%, $p= 0. 14$). However, the data demonstrated that the effect of single dose of dexamethasone in each gestational age interval ; (34-34+6), (35-35+6), and (36-36+6) had a significant effect in reducing respiratory complications in the treatment group compared to the control group (35. 71% vs 52. 94%, 29. 6% vs 35. 71% and 8. 0% vs 28. 26%, respectively, $p=0. 01$). The percentage of neonatal hypoglycemia was lower in the treatment group than in the control group. The mean birthweight and the days of hospitalization were comparable in both groups.

Conclusion

The administration of a single dose of dexamethasone in late preterm labor could have a beneficial value in reducing the respiratory complications in newborns.