
Comparison of therapeutic efficacy between exogenous surfactants: Curosurf and Survanta in Ardabil Alavi and Bu Ali hospitals

Abstract

Background: Exogenous natural and synthetic surfactant is a rescue treatment for respiratory distress syndrome (RDS). The goals of the study were to compare the clinical response and therapeutic efficacy of two frequently used surfactants, poractant alfa (Curosurf) and beractant (Survanta), for the treatment of respiratory distress syndrome in preterm infants which were admitted into NICU.

Methods: This Cohort (prognosis study) was performed between two groups. Sample size included 150 premature neonates, 75 patients in Survanta and 75 ones in Curosurf group. Their all data were registered then calculated and statistically analyzed by SPSS software. The level of statistical significance was considered to be <0.05 .

Results: There were no statistically significant differences between the infants treated by Survanta or Curosurf groups regarding their mean gestational age ($p=0.05$) and birth weight ($p=0.955$). Mortality rate in Curosurf group 17.33% and in Survanta group 20% ($p=0.824$), pneumothorax in Survanta group 20% and in Curosurf group 13.33% ($p=0.381$), bronchopulmonary dysplasia (BPD) in Survanta group 13.33% and Curosurf group 10.66% ($p=0.802$), intraventricular hemorrhage (IVH) in Survanta group 17.33% and in Curosurf 21% ($p=0.489$). Mean of admission duration in Curosurf group 11.63 days and in Survanta group 12.99 days ($p=0.635$). But we detected the statistical significance in repeating dose of Survanta 67.7% and in Curosurf group 32.3% of patients ($p=0.043$), in mean duration of ventilation Survanta group 8 days and Curosurf group 10.45 days ($p=0.001$).

Conclusion: This study showed that Survanta and Curosurf had similar side effects in treatment of RDS in preterm infants. But requiring of repeating dose in Curosurf group is less than the other group. Also duration of ventilation in Survanta group is less than the Curosurf group, and these two findings and differences were statistically significant.

Keywords: preterm infant, respiratory distress syndrome, surfactant.