

Evaluation of Probiotics for the Prevention of Necrotizing Enterocolitis in Preterm Neonates

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Abstract

Background: Necrotizing Enterocolitis (NEC) is the most common life threatening emergency of the gastrointestinal tract in the newborn period. The disease is characterized by various degrees of mucosal and transmucosal necrosis of the intestine. **Methods:** This trial was conducted to study role of probiotics in reducing the incidence and severity of necrotizing enterocolitis in preterm neonates. Based on the previous study experiences and consultation with experts, sample sizes of 200 were selected by simple random sampling. **Results:** In our study 51.5% were males and 48.5% were females. The number of male babies to female babies in test group is n=52 and n=48 and in control group is n=51 and n=49. There is no statistically significant difference between the two groups in sex distribution. In the present study, 5% were less than 1 kg, 60.5% between 1.01-1.499 kg, 31.5% between 1.5 -2 kg and 3% > 2 kg. In this study 90% babies were associated without any antenatal risk factors, 4% were associated with premature rupture of membranes (PROM), 5.5% were associated with pregnancy induced hypertension or pre-eclampsia (PIH/PE) and 0.5% were associated with gestational diabetes mellitus (GDM). **Conclusion:** The present study found that probiotic supplementation has reduced both incidence and severity of NEC in preterm neonates < 34 weeks of gestation. Probiotic supplementation has also reduced the incidence of culture proven sepsis in the preterm neonates but there were no significant differences between test and control groups in age reached full feeds and mean duration of hospital stay.