Aim Update our systematic review of probiotic supplementation (Started within first 10 days, duration: 37 days) in preventing NEC in preterm VLBW neonates.

Method Standard Cochrane Neonatal Review Group search strategy was followed. CENTRAL, MEDLINE, EMBASE, CINAHL databases, proceedings (from 2009) of the Pediatric Academic Society meetings and Gastroenterology conferences were searched in September 2011.

Results Total 17 RCTs (N=3147) including recently published 5 new RCTs (N=840) were eligible for inclusion in the meta-analysis. The risk of NEC [RR: 0.95; 95% CI: 0.72, 0.96; p<0.00001] and death [RR: 0.54; 95% CI: 0.41, 0.72; p<0.00001] was significantly lower and the time to full feeds was significantly shorter in the probiotic group (WMD= –2.29 days; 95% CI: –4.25, –0.32; p=0.00001). Risk of sepsis was similar in both groups (RR: 0.92; 95% CI: 0.80, 1.06). Subgroup analysis, according to baseline incidence of NEC (<6% and ≥26%) also showed significant benefits of probiotics in both scenarios.

Conclusions The results of our updated Meta analysis continue to show the benefits of probiotic supplementation. We have now provided additional evidence of its benefits in units with high as well as low baseline incidence of NEC.


1377 NECROTIZING ENTEROCOLITIS IN MULTIPLE GESTATIONS: COMPARISON WITH SINGLETONS

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NEC is one of the most important surgical disease in the first few days after birth. The aim of this study is to describe incidence of Necrotizing enterocolitis in multiple gestations compared with singletons, determining the neonatal outcome, risk factors and co-morbid factors.

A retrospective review of the discharge records of multiple-gestation and singletons infants admitted into the neonatal intensive care units between January 2002 and January 2009 was performed.

The medical charts of all infants developing NEC or suspected NEC were reviewed and perinatal data recorded. The risk and co-morbid factors of two main groups (developing NEC and not developing NEC) were analyzed.

During the study period we considered 409 infants from multiple gestations and 895 singletons. The percentage of infants with NEC in multiple gestation (18%) was higher than singleton prematurity at the same Hospital (4%) (p<0.05). Patients with suspected or advanced NEC showed longer time of meconium evacuation if compared to the others (mean 5 vs. 2 days, p<0.05). Patients who received bowel enemas starting from day 2 after birth did not develop NEC or advanced NEC (p<0.05). Mortality was associated with lower gestational age and lower Apgar score at 1 minute (p<0.05).

The analysis of multiple pregnancies showed that the incidence of NEC(stage II but Stage III) increased with respect to singleton pregnancies only when considered in relation to a higher prematurity rate.

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