P17

IMPACT OF ORAL PROBIOTICS ON IMMUNE AND METABOLIC DISEASE FOR PRETERM VEY LOW BIRTH WEIGHT INFANTS AT TEENAGE

Hung-Chih Lin, Hsiang-Yu Lin, Fu-Kuei Hung, Ming-Luen Tsai, Hsiao-Yu Chiu, Bai-Horng Su, Tsu-Fuh Yeh

Objective

it is becoming evident that interplay between microorganisms and the intestine of newborn infants in early life is critical for development of the immune system and metabolic function and may result in life-long health consequences.

Methods

A prospective follow-up study was performed in a cohort of preterm very low birth weight (PVLBW) infants enrolled in a single center with a masked randomized control trial to evaluate the efficacy of oral probiotics in preventing NEC. Immune and metabolic associated disease were evaluated bases on doctors diagnosis at 12-15 years corrected age. The follow up program was according to a fixed protocol and the investigator was blind to the group. The primary outcome was any disease atopic eczema, asthma, allergic rhinitis, systemic lupus erythematous, juvenile rheumatoid arthritis, obesity and type I or II diabetics.

Results

Of the 367 subjects enrolled in the initial trial, 335 infants were survival for follow-up after discharged. Of them 232/335 (68.8%) were evaluated (113 in the probiotics group and 119 in the control group) at 12-15 years of corrected age; 1 in the study group and 1 in control group died. There were no significant differences in the combined immune and metabolic associated disease between the two groups (6 /113 vs 5 /119)

Conclusions

Though the follow up rate was less than 80%, oral probiotics given to PVLBW infants at 1 week after birth to reduce the incidence of NEC did not affect the combined immune and metabolic associated disease between groups at 12-15 years of corrected age.

P18

COMPARISON OF USING DIFFERENT DOSE ORAL FORM IBUPROFEN FOR EARLY TARGETED TREATMENT OF PATENT DUCTUS ARTERIOSUS IN VERY PRETERM INFANTS

Fu-Kuei Huang, Hsiang-Yu Lin, Ming-luen Tsai, Hsiao-Yu Chiu, Hung-Chih Lin, Bai-Horng Su

Objective

To compare the efficacy and safety using different dose oral form ibuprofen for the closure of patent ductus arteriosus (PDA) in very preterm infants in a single medical center.

Methods

The subjects consisted of very low birth weight(VLBW) infants admitted to the neonatal care unit (NICU) of Children's Hospital of China Medical University (CHOCMU) from two groups. One is the low dose group (10mg, 5mg, 5mg), and the other is the high dose group (20mg, 10mg, 10mg). VLBW infants with respiratory distress syndrome and PDA confirmed by echocardiography received ibuprofen, starting at < 24 hours of life, followed by half these first doses within 48 hours at 24-hour intervals if indicated by echocardiographic PDA flow pattern.

Results

There were no difference in the demographic data and major morbidities in preterm babies in the two groups. The PDA closure rate is 79/92 (85.8%) and 43/60 (71%) in high dose group and low dose group, respectively. The closure rate is significantly higher in the high dose group (P=0.03). No significant difference was found in the numbers of infants requiring surgical ligation, the levels of post-treatment serum creatinine and urea nitrogen between the two groups. The incidence of side effects as hypoglycemia and upper gastrointestinal (UGI) bleeding were both significant higher in the high dose group.

Conclusions

High dose ibuprofen is significantly more effective in treating PDA with higher rates of occurrence hypoglycemia and UGI bleeding. The optimal dose of oral form ibuprofen should be used cautiously.