weight and gender. By 2009, the major reasons for not feeding were largely unavoidable (including nil by mouth peri-procedure, gut pathology).

Conclusions: Introduction of a new feed in guideline appeared to result in earlier and more effective establishment of enteral feeding.

77

LACTOBACILLUS REUTERII ACCELERATES GASTRIC EMPTYING AND IMPROVES REGURGITATION IN INFANTS

F. Indrio[1], G. Riezzo[2], F. Raimondi[3], A. Filannino[1], M. Bisceglia[4], L. Cavallo[1], R. Francavilla[1]

[1]Department of Pediatrics, University of Bari, Bari, [2]Laboratory of Experimentally Pathophisiology, IRCCS Castellana Grotte, Castellana Grotte, [3]Dept of Pediatrics, University "Federico II Naples, Naples, [4]Dept of Pediatric, Ospedale san Giovanni di Dio, Crotone, Italy

Aim: Young infants are frequently affected by uncomplicated regurgitation that may persist despite dietetic and conservative interventions. On this basis, we studied the putative effects of probiotics on the frequency of regurgitation and gastric emptying time in infants with functional gastroesophageal reflux.

Patients and methods: Forty two infants with regurgitation were randomized to assume *Lactobacillus reuteri* DSM 17938 at a dose of $1x10^8$ CFU per day and placebo for 30 days. The episodes of regurgitation were recorded by the parents each day. Gastric emptying time was recorded using real-time ultrasound at baseline and at the end of the study. Twenty-one infants without regurgitation were enrolled to compare anthropometric and physiological parameters before the intervention diet.

Results: Thirty-four infants completed the study (19 infants receiving probiotics and 15 placebo). At baseline, the whole group of infants was similar to the control group as regards anthropometric and physiological data. The median fasting antral area was significantly reduced, (p=0.01) the delta in gastric emptying rate was significantly increased (p=0.01) and the median episodes/day of regurgitation was reduced (, p< 0.001) in the probiotic group compared to the placebo group. In the whole group, the frequency of regurgitation and the basal antral area showed a positive correlation (r=0.53, p=0.004).

Conclusion: In infants with functional gastroesophageal reflux L*. reuteri* DSM 17938 reduce gastric distension and accelerate gastric emptying. In addition this probiotic strain seems to diminished the frequency of regurgitation.

78

DIFFERENTIAL ROLE OF THE LECTIN PATHWAY OF COMPLEMENT ACTIVATION IN SUSCEPTIBILITY TO NEONATAL SEPSIS

L.J. Schlapbach[1], M. Mattmann[1], S. Thiel[2], M. Nelle[1], B. Wagner[1], R.A. Ammann[1], J.C. Jensenius[2], C. Aebi[1,3]

[1]Department of Pediatrics, University of Bern, Bern, Switzerland, [2]Department of Medical Microbiology and Immunology, University of Aarhus, Aarhus, Denmark, [3]Institute for Infectious Diseases, University of Ben, Bern, Switzerland

Objective: Newborns are highly susceptible to bacterial sepsis. Mannan-binding lectin (MBL), M-, L- and H-ficolin recognize microorganisms and activate the complement system via MBL-associated serine proteases (MASPs). We investigated lectin pathway cord blood concentrations in infants with neonatal sepsis.

Study design: Case-control study including 47 infants with culture-proven neonatal sepsis and 94 matched controls. MBL, M-, L-, H-ficolin, MASP-2 and MASP-3 were measured in cord blood using EIA/TRIFMA. Multivariate logistic regression was performed.

Results: Infants with gram-positive sepsis had significantly lower H-ficolin cord blood concentrations compared to controls (p=0.005), while infants with gram-negative sepsis had lower MBL (p=0.084). When excluding patients with postoperative sepsis, multivariate analysis confirmed that low H-ficolin < 12000ng/ml was associated with a significant risk of gram-positive sepsis (OR 3.71, 95%-CI 1.26-10.92, p=0.017). Low MBL < 300ng/ml was associated with a significant risk of gram-negative sepsis (OR 4.39, 95%-CI 1.10-17.45, p=0.036). M-ficolin cord blood concentrations correlated with absolute phagocyte count (p< 0.001), and high M-ficolin >1000ng/ml was predictive of early-onset sepsis (OR 10.92, 95%-CI 2.21-54.02, p=0.003). The concentrations of all lectin pathway proteins increased with gestational age (p< 0.01).

Conclusions: This is the first study assessing the complete lectin pathway of complement activation