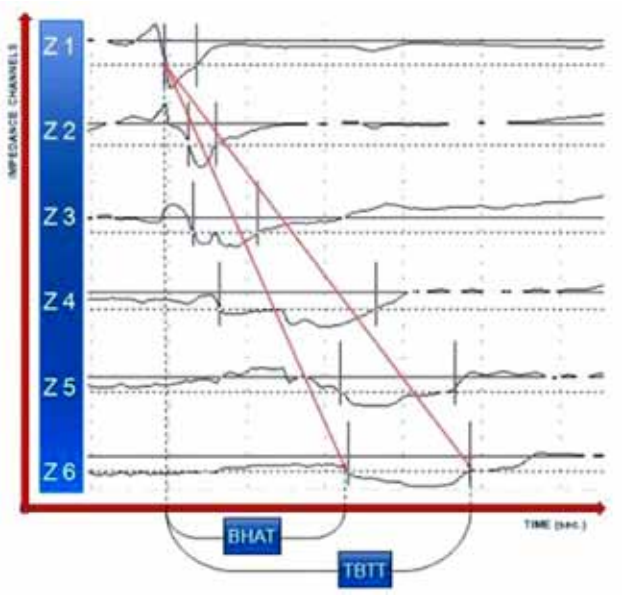
Methods Esophageal swallow patterns and refluxes were visually evaluated in preterm and at term bottle fed newborns who underwent Multichannel Intraluminal Impedance (MII) analysis for clinical suspect of GERD.

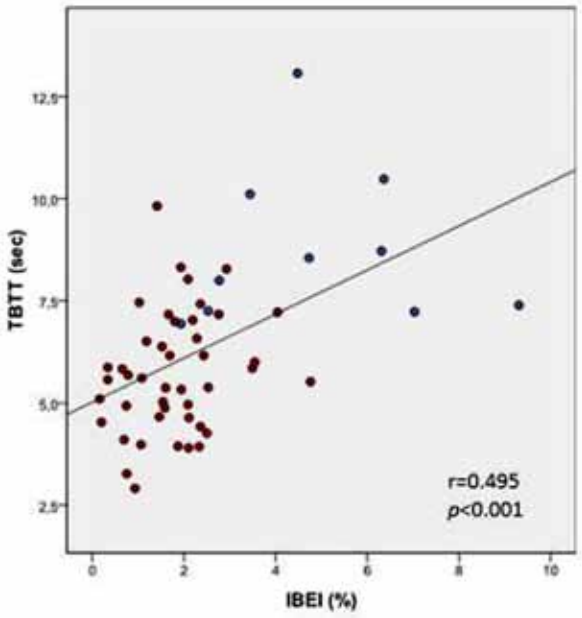
The swallow frequency, the mean Bolus Head Advance Time (BHAT), the mean Total Bolus Transit Time (TBTT) and reflux characteristics (frequency, duration and impedance bolus exposure index) were assessed for each patient.



Abstract 714 Figure 1

Pearson correlation was used to evaluate the relationship between swallow and reflux variables; p was set at 0.05.

Results Fifty-four newborns (10 preterm) were enrolled in the study. They had a median(IQR) age of 22(22.5) days, a Gestational age of 37(6) weeks and a postconceptional age of 41.8(4.9) weeks. A significant positive correlation was found between TBTT and IBEI% (r=0.494; p<0.001) and between TBTT and reflux duration (r=0.321; p=0.018).



Abstract 714 Figure 2

Conclusions MII is a valid technique to evaluate esophageal bolus transit and refluxes. Our data support that esophageal motor dysfunction due to immaturity affect esophageal swallowing patterns and esophageal clearance time in GERD newborns.

715 DENTAL EROSION AND GASTROESOPHAGEAL REFLUX DISEASE (GERD) IN CHILDREN

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Background Dental erosion is a complication of gastroesophageal reflux Disease (GERD) in adults; in children, it is not clear if GER has a role in dental pathologic conditions. Dietary intake, oral hygiene, high bacterial capacity, and decreased salivary flow might contribute individually to GERD development or dental erosion, but their potential involvement in dental erosion from GER is not agreed. We investigated the prevalence of dental erosion among children with and without GER symptoms, and whether salivary flow rate to location-specific dental erosion.

Methods We performed a cross-sectional study of 40 children (ages,3–6 y) with symptoms of GERD and 30 asymptomatic children (controls); all completed a questionnaire on dietary exposure. Teeth were examined for erosion into dentin, erosion locations, and affected surfaces. All subjects responded a detailed frequency questionnaire related to acidic drinks, foods, and sugar consumption and participated in a clinical dental examination. The caries experience of the children was recorded according to World Health Organization criteria, and erosion was scored according to the Eccles and Jenkins grading scale.

Results This Survey showed that the prevalence of erosion on palatal surfaces of the primary teeth was 42% in 3–6-year-olds with GERD. This finding to be significantly higher than for healthy subjects (P<0.05). The salivary flow rate, and frequency of acidic drinks, foods, and sugar consumption were found to be similar in both groups.

Conclusion This current investigation has showed that GERD children were at an increased threat of developing erosion and caries compared with healthy subjects.

716 DOES BLOODY ASPIRATE REFLECT THE STATE OF UPPER GASTROINTESTINAL MUCOSA IN A CRITICALLY ILL NEWBORN?

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Background and study aims Critically ill newborns have many risk factors to develop stress related mucosal lesions (SRML). We used upper endoscopy to evaluate the presence of SRML in these neonates, to know the specificity and sensitivity of the bloody gastric aspirate to detect SRML and to identify the risk factors associated with the presence of SRML and bloody gastric aspirate.

Patients and methods This is a cross-sectional study done on 100 critically ill newborn after becoming clinically stable. SRML were diagnosed if there is hyperemia, erosions or ulcers in the esophagus, stomach, and/or the duodenum. The association between the various clinico-laboratory findings and the presence of SRML and bloody gastric aspirate were studied.

Results SRML were found in 77% of neonates in the NICU though frank bloody aspirate was detected in only 22% of neonates. The presence of bloody aspirate showed low sensitivity (24.68%) for the presence of SRML and high specificity (86.96%). The presence of bloody gastric aspirate showed a double fold risk for the presence SRML (OR=2.184, CI=0.584–8.171). Factors associated with SRML

included respiratory distress (p=0.000, risk= 4.006), the use of nasogastric tube (p=0.017, OR=3.281) and the use of triple antibiotics (p=0.001, risk=1.432). Factors associated with the presence of bloody gastric aspirate included the use of nasogastric tube (OR=1.629, p=0.000) and the presence of hemostatic disorders (OR=3.143, p=0.039). It was also associated with lower hemoglobin levels (p=0.000).

Conclusion SRML represents an under-diagnosed problem in NICUs. Absence of bloody gastric aspirate does not exclude stress-related mucosal lesions.

717 CORRELATION BETWEEN HELICOBACTER PYLORI SEROLOGIC TESTS WITH RAPID URASE AND HISTOLOGY IN CHILDREN

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Background Helicobacter pylori infection is a common infection that affects the human being. This infection also affects the children. Different diagnostic methods such as serology, stool antigen detection, rapid urease test and histology detect this microorganism. The aim of this study was to determined correlation between serology and histology/rapid urease test.

Methods Two groups were selected and matched for age and sex. Seventy seven children with confirmed H. pylori infection as they had positive rapid urease test and histology concomitantly were compared with 77 healthy children. Both case and control groups checked serologically for detection of anti H. pylori IgM, IgG and IgA antibody titers.

Results Three Cut-off points were 3.3 U/ML for IgA, 6.4 U/ML for IgM, and 9.9 U/ML for IgG. Antibody titers were compared with gold standard methods including histologic and rapid ureas tests. IgA level had a sensitivity of 64%, specificity of 58%, accuracy of 59.3%, positive predictive value of 31.5%, and negative predictive value of 76.9%. IgM level had a sensitivity of 76%, specificity of 36.1%, accuracy of 74.2%, positive predictive value of 31.5%, and negative predictive value of 76.9%. IgG level had a sensitivity of 58.6%, specificity of 61.3%, accuracy of 60.6%, positive predictive value of 36.9%, and negative predictive value of 79.3%.

Conclusion These antibodies have a relatively high negative predictive value and a low positive predictive value. So, their negative results are more valuable. The most sensitive antibody is IgM and most specific antibody is IgG.

718 INFANT FEEDING FOLLOWING GASTROSCHISIS REPAIR

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Background and Aims Establishment of enteral feeding is crucial in gastroschisis. Breastmilk may be protective against early complications. Mothers are counselled by breast feeding advisors in our institution. We reviewed initial and discharge feed in a cohort of simple and complex cases.

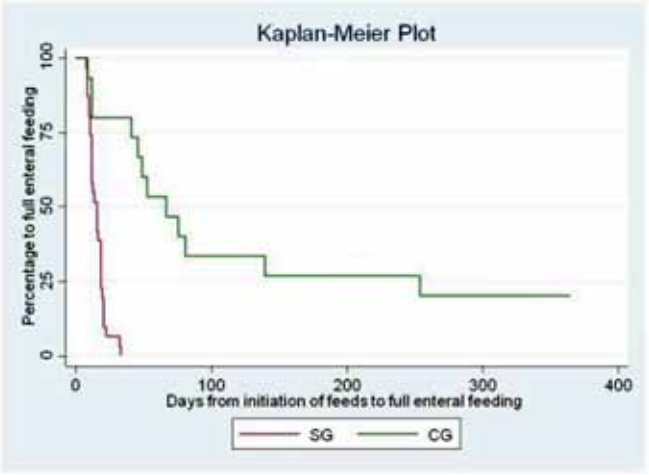
Methods Retrospective analysis of feeding outcomes in 46 patients between August 2008 and Jan 2012 in a single centre. Complex cases were defined as those with closed gastroschsisis, bowel atresia, perforation, obstruction or necrosis, stoma or necrotising enterocolitis.

Results Maternal milk (MEBM) was initiated in 42 (91%) infants. MEBM and donor breast milk for 2(4.5%) and specialised formula(SF) for 2(4.5%).

Abstract 718 Table 1 Discharge Feed

DISCHARGE FEED	SIMPLE(SG) n=31	COMPLEX(CG) n=15
MBM	16(52%)	1(7%)
MBM/SF	3(10%)	2(13%)
MBM/TF	5(16%)	0
SPECIALISED FEED(SF)	2(6%)	12(80%)
TERM FORMULA(TF)	5(16%)	0

Discharge feed was all or part breast milk in 78% of the SG group versus 20% in the CG, p=0.0001. It was breast milk exclusively in 52% of the SG group versus 7% of the CG, p=0.0025. Median days to full feeds were 16 in the SG versus 67 in the CG, p<0.0001.



Abstract 718 Figure 1 Time

Conclusions CG cases were less likely to be receiving any breast milk on discharge. This has implications for medical and parental expectations of potential outcome.

719 THE EFFECT OF A FISH-OIL-BASED LIPID EMULSION ON THE PARENTERAL NUTRITION-ASSOCIATED LIVER DISEASE IN VERY LOW BIRTH WEIGHT INFANTS

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Background and Aims Prolonged parenteral nutrition (PN) can cause parenteral nutrition-associated liver disease (PNALD) in very low birth weight infants (VLBWIs). Evidence has suggested soybean-oil-based lipid emulsion (SOLE) is a contributing factor to the development of PNALD. In this study, we investigated the effect of fish-oil-based lipid emulsion (FOLE) on incidence and severity of PNALD in VLBWIs compared with SOLE.

Methods Retrospective review of 66 VLBWIs who received PN for more than 14 days in our NICU from January 2007 to December 2010 was performed. Patients were divided into two groups: SOLE Group (n=30, January 2007–March 2009), received Intralipid® (Choongwae Pharma Corporation, Seoul, Korea) and FOLE group (n=36, June 2009–December 2010), received SMOFlipid® (Fresenius Kabi AG, Bad Homburg, Germany). The Clinical and laboratory findings were evaluated.

Results There were no significant differences in the demographic features and major morbidities between two groups. The peak level of serum direct bilirubin were markedly lower in the FOLE group compared with the SOLE group (2.21±2.16 vs. 3.16±2.20 mg/dL,