

**Conclusions** The results suggest that in obese children undergoing nutritional interventions longitudinal changes in liver fat content may be associated with change in serum transaminases suggesting novelty in monitoring NAFLD in childhood obesity.

# 711 COMPARISON BETWEEN OVERWEIGHT/OBESE (OW/OB) PATIENTS: COELIAC VS NON COELIAC ONES

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**Background and Aims** In literature there are case reports of coeliac disease (CD) diagnosed in OW/OB children and studies assessing the body weight excess (EBW) at CD diagnosis. Besides, an incorrect gluten-free-diet (GFD) often leads to EBW. Aim of this study is to assess the effect of a balanced diet in coeliac patients (CP) with EBW compared to matched non-coeliac patients (NCP) with EBW.

**Methods and results:** In 2006–2010, we selected 8 (4M, 4F, age=11.35±3.79) out of 29 CP we follow; they all had EBW (z-BMI=1.93±0.69) and were compliant to the GFD. Follow-up lasted 11.62±1.68 months, with a z-BMI reduction in all cases (z-BMI=1.45±1.01). Among the matched 8 NCP (4M, 4F, age=10.52±3.60; start-up's z-BMI=2.07±0.59;), followed-up for the same period of time, 7 reduced their z-BMI (1.57±0.67), while in 1 it worsened.

**Conclusions** Despite the limited number of patients, our study underlines the importance of a strict supervision in CP with EBW to improve their nutritional status. We also noticed that the coherent adherence to a balanced GFD and the consequent effect on z-BMI are better than those among NCP, probably because in CP the nutritional prescriptions are perceived as indispensable for the therapy of CD.

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# 712 SAFETY AND EFFICACY OF OMEGAVEN IN PRETERM NEONATES WITH PARENTERAL NUTRITION ASSOCIATED LIVER DISEASE

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**Background** Omegaven, a fish oil derived parenteral lipid emulsion rich in omega-3 fatty acids, has been used in the United States under Investigational New Drug applications to treat parenteral nutrition associated liver disease (PNALD) in neonates.

**Aims** To evaluate the safety profile and changes in serum direct bilirubin levels in preterm neonates with moderate to severe PNALD treated with Omegaven.

**Methods** A prospective observational study of parenteral nutrition (PN) dependant neonates with consecutive serum direct bilirubin levels above 3 mg/dL, separated by a minimum of 7 days, who were expected to require PN for at least 3 more weeks were considered for Omegaven therapy. Eligible neonates were treated with Omegaven, as the only lipid infusion, at a maximum rate of 1 g/kg/day. Omegaven therapy was stopped once the serum direct bilirubin

level was less than 1 mg/dL on consecutive weeks, or the patient tolerated adequate enteral nutrition to stop PN. The change in serum direct bilirubin was compared using the Wilcoxon signed-rank test.

**Results** 17 neonates were eligible for the analysis with a mean gestational age at birth of 26.6 weeks and mean birth weight of 911 g. Omegaven was administered for a median of 57 days. The neonates tolerated Omegaven well, without significant changes noted in the safety indicators (coagulation profile, platelet count, serum triglyceride, glucose, albumine).

Serum direct bilirubin levels decreased significantly during the treatment course ( $p = 0.035$ ).

**Conclusions** Significant decrease in serum direct bilirubin levels was observed in neonates with PNALD; omegaven was well tolerated.

# 713 COMPARISON BETWEEN PROPOFOL VERSUS PROPOFOL-KETAMINE COMBINATION IN PAEDIATRIC UPPER GASTRO-INTESTINAL ENDOSCOPY

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**Objective** To assess the safety and effectiveness of the ketamine plus propofol combination versus propofol alone for procedural sedation in pediatric patients undergoing upper GI endoscopy.

**Patients and design:** A retrospective case series of patients undergoing procedural sedation for upper GI endoscopy was studied. Median age was 6.3 (0.4–13.1) years. 29 patients received propofol alone while 37 patients received propofol plus ketamine; the child's degree of sedation was scored using the modified Ramsay sedation scale. Procedural success (length of the procedure), adverse effects, recovery time, and vital signs were also measured.

**Results** No patient in either group experienced major adverse events or required tracheal intubation. In group receiving ketamine and propofol, the total dose of propofol required was significantly lower than in Propofol alone ( $3.4 \pm 3.2$  mg/kg vs.  $5.2 \pm 3.4$  mg/kg;  $P < 0.001$ ). The incidence of hypotension was also significantly lower (10% vs. 37%;  $P < 0.001$ ). Both best analgesia and shorter recovery time were obtained with the propofol-ketamine association. No differences were observed in the degree of sedation and in the awakening quality score between the two groups.

**Conclusions** The combination of propofol and ketamine provides a good solution for procedural sedation in during GI endoscopic procedures. Compared to propofol alone, ketamine and propofol results in less hypotension and reduces the incidence of respiratory depression.

# 714 RELATIONSHIP BETWEEN ESOPHAGEAL SWALLOW PATTERNS AND REFLUX CHARACTERISTICS IN NEWBORNS WITH SYMPTOMS OF GASTROESOPHAGEAL REFLUX DISEASE

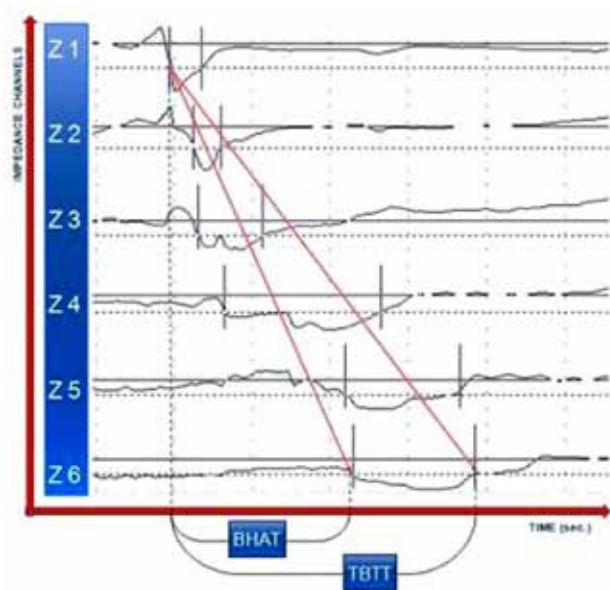
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**Background and Aims** Transient lower esophageal sphincter relaxations are primarily responsible for GER in healthy infants and plays an important role in preterm and term infants with GER disease (GERD). Gastroesophageal dysmotility due to immaturity could also promote impaired swallowing patterns influencing the esophageal clearance. The aim of this study was to investigate the relationship between esophageal swallow patterns and reflux characteristics in newborns with GERD symptoms.

**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.

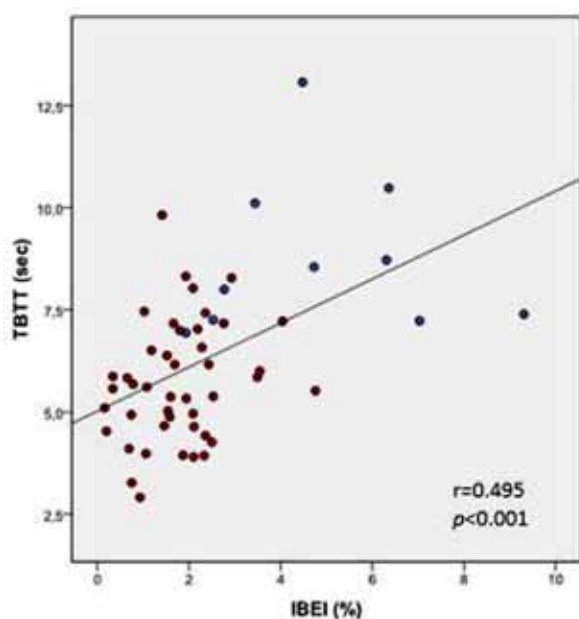
The swallow frequency, the mean Bolus Head Advance Time (BHAT), the mean Total Bolus Transit Time (TBTT) and reflux characteristics (frequency, duration and impedance bolus exposure index) were assessed for each patient.



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 of SRML (OR=2.184, CI=0.584–8.171). Factors associated with SRML