

**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

doi:10.1136/archdischild-2012-302724.0711

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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

doi:10.1136/archdischild-2012-302724.0712

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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

doi:10.1136/archdischild-2012-302724.0713

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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±3.2 mg/kg vs. 5.2±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

doi:10.1136/archdischild-2012-302724.0714

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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 distmotility 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.