

**Conclusion:** Childhood AAC may be secondary to a variety of etiologies, especially during the course of infectious diseases. Presence of shock and a low value of fibrinogen are predictable factors for mortality in childhood AAC.

275

**NON-ALCOHOLIC FATTY LIVER DISEASE AND STEATOHEPATITIS IN TAIWANESE CHILDREN: THE PREVALENCE AND SERUM RETINOL BINDING PROTEIN 4 LEVEL**

Y.-J. Yang<sup>1</sup>, S.-C. Huang<sup>2</sup>

<sup>1</sup>*Department of Pediatrics, National Cheng Kung University and Hospital,* <sup>2</sup>*Department of Pediatrics, Kuo General Hospital, Tainan, Taiwan R.O.C.*

**Subjective:** The aims of this study were to investigate the prevalence of non-alcoholic fatty liver disease (NAFLD) and non-alcoholic steatohepatitis (NASH) in schoolchildren with various body mass index (BMI). Moreover, the correlation between serum RBP4 level and liver injury was investigated.

**Methods:** 847 schoolchildren aged 4 to 12 years were evaluated by anthropometric measurements. The serum glucose, aspartate aminotransferase (AST), alanine aminotransferase (ALT), triglycerides and cholesterol levels were measured after an 8-hour overnight fast. NAFLD was diagnosed as fatty infiltrates of liver in sonogram and NASH was defined as NAFLD with an elevated ALT level.

**Results:** The prevalence of overweight (85<sup>th</sup> % < BMI < 95<sup>th</sup> %) and obesity (BMI > 95<sup>th</sup> %) in schoolchildren was 14.8% and 11.4%, respectively. The mean age and male-to-female ratio were significantly higher in children with obesity than those with normal weight (P=0.001). The obese children had a higher rate of abnormal AST and ALT (P< 0.001) and higher fasting triglyceride (P< 0.001) and glucose (P=0.04) levels than those with normal weight. Among 245 children with ultrasound examinations, fatty liver disease was identified in 2.5%, 20.6%, and 68.2% of children with normal weight, overweight, and obesity, respectively. Nine (40.9%) subjects were diagnosed as NASH in children with obesity. The serum RBP4 level was significantly higher in children with NAFLD and NASH than that in normal (P< 0.05).

**Conclusions:** Childhood obesity is closely related to male gender, increase of age, fasting triglycerides, and glucose levels. Moreover, the serum RBP4 level was parallel to the liver injury in children.

276

**GASTROESOPHAGEAL REFLUX DISEASE IN INFANT: RELATIONSHIP BETWEEN MULTICHANNEL INTRALUMINAL IMPEDANCE-PH MONITORING AND CLINICAL OUTCOME**

F. Cresi, E. Locatelli, C. Marinaccio, G. Grasso, E. Castagno, L. Silvestro

*Pediatrics, University of Turin, Turin, Italy*

**Background and aims:** combined multichannel intraluminal impedance and pH-monitoring (MII/pH) is a new technique identifying refluxes irrespective of acidity and detecting their duration, proximal extent and pH. These features are important when studying gastroesophageal-reflux-disease (GERD) in infants, in which weakly acid refluxes are prevalent. Clinical application of MII/pH is uncommon yet, owing to lack of reference values and difficult interpretation of the variables obtained. Aim of the present study was to investigate the relationship between MII-pH results and clinical outcome on a sample of GERD infants.

**Methods:** infants (age: 0-3 months) with GERD symptoms were studied with MII/pH and submitted to a follow-up consisting in clinical examinations and structured interviews to parents at 3-6-9-12-18-24-36 months to evaluate the presence of symptoms and the therapy effects.

**Results:** 54 patients completed the follow-up (32M; age 33.69±21.78 days; weight 3465.13±791.08 gr.; length 52.08±3.55 cm). 22 and 15 patients were still symptomatic at the age of 6 and 9 months, without difference in MII/pH values between symptomatic and non symptomatic infants. The 12 infants that were still symptomatic at the age of 12 months showed a higher bolus exposure index (BEI) with respect to the healed patients (2.63±1.72% vs 1.72±1.05; p=0.029).

**Conclusions:** MII-pH in first months of life could be useful to identify patients with high risk of presenting GER symptoms for more than 1 year. BEI is a pH independent variable with a significant relationship with symptoms duration. Our data highlight the clinical relevance of MII/pH-detected weakly acidic refluxes in GERD infant.