

diagnosis was based on histopathological findings seen in the distal oesophageal mucosa. The diagnosis of *H. pylori* infection was made if rapid urease test and histological examination of gastric biopsies obtained during endoscopy were both positive. All the findings were retrospectively examined. The Statistical Package for the Social Sciences for Windows Release 16.0 was used to analyse the statistical data.

**Results** Of the 206 children, 70 (34.0%) had *G.A. H. pylori* infection was found in 72 (35%) children. No significant difference was found when the prevalence of *H. pylori* infection in patients with GA (24 of 70, 34.3%) was compared with that in patients without GA (48 of 136, 35.3%).

**Conclusion** No evidence has been found in this pediatric study to support the view that there might be an association between GA and *H. pylori* infection.

### 685 FOOD ALLERGY - GASTRO-ESOPHAGEAL REFLUX DISEASE ASSOCIATION IN INFANTS

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**Background** Cow's milk allergy is considered to be the first and most common type of allergy during early infancy. Gastroesophageal reflux disease and cow's milk allergy are two different diseases with common clinical features.

**The aim** of the study was to evaluate the clinical data in relation with gastroesophageal reflux and cow's milk allergy in infants.

**Material and Methods** The prospective study includes 36 infants aged between 2–6 months who attended at Pediatric Clinic during the year 2011 for the clinical evocative manifestations of gastroesophageal reflux. Study protocol includes: clinical criteria, familial/personal atopic features, mother diet, duration of breastfeeding, infant formula, esophageal ultrasonographic study, serum specific IgE cow's milk.

**Results** The clinical presentations of the infants were associated or isolated agitation/irritability, feeding refusal ( $p < 0.0002$ ), poor weight gain ( $p < 0.0001$ ), vomiting, wheezing, apnea and atopic dermatitis. Specific Ig E revealed allergy in 10 cases. The implication of cow's milk allergy was in 10/36 cases (27.7%). The key elements evocating the link between cow's milk allergy and gastroesophageal reflux were the persistence of symptoms under anti-reflux therapy and the improvement of symptoms under the exclusion of cow's milk. Favorable clinical course, disappearance of symptoms, weight gain under anti-reflux therapy confirmed the gastroesophageal reflux in the other cases. Esophageal ultrasonography was a useful noninvasive test in patients with reflux.

**Conclusions** Clinical assessment and allergy tests in infants with the suspicion of gastroesophageal reflux revealed the association of these diseases. The concomitant therapy was followed by clinical resolution of symptoms.

### 686 NUCLEAR TRANSIT SCINTIGRAPHY (NTS) - AN EVOLVING ROLE FROM DIAGNOSTIC TO MONITORING TOOL IN CHILDREN WITH CHRONIC CONSTIPATION

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**Purpose** Nuclear transit scintigraphy (NTS) is a relatively new investigation for children with intractable chronic constipation.

Three patterns of colonic transit were identified: normal, slow and rapid colonic transit. We aimed to determine the use of NTS over the last 12 years at a tertiary institute. We hypothesised that NTS has evolved from a diagnostic to a monitoring tool.

**Methods** NTS were reviewed retrospectively (1999–2011) and characterized based on 3 different colonic transit patterns with further division into a new/repeat study (Ethics30059A). Statistical analysis was performed with Chi-square test to examine the effect of change;  $p < 0.05$  considered significant. Transcutaneous electrical stimulation (TES) was introduced to treat slow-transit constipation (STC) since 2006. Hence, we examined the changing role of NTS before and after TES use in STC children.

**Results** From 1999–2011, there were 955 NTS performed (667 new and 288 repeat studies): normal colonic transit - 133 new and 27 repeat; rapid colonic transit - 190 new and 24 repeat; slow colonic transit - 344 new and 237 repeat studies; with more repeat studies for STC children ( $p < 0.0001$ , Chi-square). There was an increase of repeat studies from 1999–2005 (15%) to 2006–2011 (30%,  $p < 0.0001$ ). Since 2006, 95/237 (40%) NTS performed were repeat studies to monitor the effects of TES in STC children.

**Conclusion** NTS has is a useful diagnostic tool and helps to improve management of chronic constipation by guiding therapy, targeting the underlying dysmotility. It also provides objective assessment in monitoring response to therapy/intervention.

### 687 ROLE OF INTRAUTERINE CMV INFECTION IN FORMATION OF BILIARY ATRESIA

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**Aims** To establish the role of congenital virus infection in formation of biliary atresia (BA).

**Methods** 75 pts age from 1 to 9 months with the following diagnoses: BA - 44, PFIC2-9, Alagille syndrome-9, bile duct cyst -7, deficiency of a-1-antitrypsin (ZZ-phenotype)-4, perinatal sclerosing cholangitis-2, galactosemia-1 and one patient had hepatitis as a result of congenital general acute CMV infection. Among common examinations, laboratory tests and instrumental methods, following methods were used: DNA of CMV, HSV1.2, EBV, HBV and RNA of HCV were analyzed by PCR on biopsies of the liver, blood and urine, as well as histological examination of liver biopsy performed.

**Results** Liver biopsy specimens were CMV DNA positive for the patient with congenital acute CMV infection, for 37 (84%) pts with BA, for 4 pts with Alagille syndrome, for 3 pts with bile duct cyst and for 1 child with PFIC2. EBV DNA test was positive only for 1 patient with BA and 1 with bile duct cyst. Presences of HSV1.2, HBV DNA and HCV RNA have not been found in all liver biopsy specimens. Blood samples were CMV DNA positive for the patient with congenital acute CMV infection, for 6 (14%) pts with BA. Urine samples were CMV DNA positive for the patient with congenital acute CMV infection, for 7 (16%) pts with BA and for 5 pts with Alagille syndrome.

**Conclusion** We assume that intrauterine CMV infection may play an important role in pathogenesis of BA.

### 688 ARE THE 2009 ESPGHAN/ESPID'S RECOMMENDATIONS IN ACUTE GASTROENTERITIS USED CORRECTLY?

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