Conclusions Studies showed that in children with chronic gastritis, Epstein-Barr virus markers are detected in the blood with high frequency. There is a relationship between the presence of the Epstein-Barr virus in the gastric mucosa and histological signs of gastritis.

GP177

ASSESSMENT OF NUTRITIONAL AND IRON STATUS OF HELICOBACTER PYLORI INFECTED CHILDREN – A SINGLE CENTER STUDY

¹Luiza Bordei, ²Victoria Hurdac, ¹Doina Anca Plesca*, ¹Victor Gomoiu. *Clinical Children's Hospital, 'Carol Davila', University Of Medicine and Pharmacy, Bucharest, Romania;* ²Victor Gomoiu *Clinical Children's Hospital, 'Carol Davila', University Of Medicine and Pharmacy, Bucharest, Romania*

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Introduction *Helicobacter pylori* (*H. pylori*) infection affects about 30% to two-thirds of human populations and is usually acquired in early childhood. There are conflicting results regarding the nutritional effects of *H. pylori* infection in children mostly about the reduced bioavailability of essential nutrients with growth impairment.

The association between *H. pylori* infection and iron deficiency anaemia is of considerable current interest.

Objectives To evaluate the effects of *H. pylori* infection on the nutritional and the iron status of symptomatic children that required a first upper endoscopic evaluation.

Methods This was an observational prospective study of 649 symptomatic children (age range 6 months-18 years) mostly with uninvestigated dyspepsia or extradigestive signs, admitted in our unit, from January 2015 to December 2017. Weight, height, body mass index for age and sex were used according to growth charts provided by WHO, 2007. Romania is in a nutritional transition and does not have updated national growth charts. *H. pylori* infection was documented by at least two standard invasive tests. Hematologic parameters and nutritional status were compared in patients with and without *H. pylori* infection.

Results Active *H. pylori* infection was documented in mostly of studied patients (63,64%). The majority of patients presented normal nutritional status (67,32%), with a significant proportion of wasting (12,63%) associated with risk to underweight (13,09%) overweight (4,48%) and obesity (2,16%). The prevalence of undernutrition was higher in uninfected *H. pylori* children compared with the infected ones (13,55% versus 12,1%; $p = 0,67$). Overnutrition prevalence was higher in the case of the *H. pylori* negative children compared to the positive ones (3,81% versus 2,66%, $p = 0,37$). The stunted was observed only in 3,08% cases. Iron deficiency anaemia was found in 19,72%, with an approximately the same prevalence in uninfected compared to infected children (19,91% versus 19,61%).

Conclusions The *H. pylori* prevalence rate (63,64%) revealed by our study suggests that this infection remains a semnificative problem in our country. This endoscopic series revealed a lower prevalence of undernutrition and overnutrition in symptomatic *H. pylori* infected children compared with uninfected ones, but without statistically signification for the both ends of the spectrum of poor nutritional status. Our study showed that the prevalence of iron deficiency anaemia was not significantly higher in uninfected *H.*

pylori children compared to infected patients. According to other observational studies the role and the impact of *H. pylori* infection on growth and iron deficiency anaemia remains controversial.

GP178

MORPHOLOGICAL FEATURES OF CHRONIC ESOPHAGITIS IN CHILDREN WITH CONCOMITANT ALLERGIC DISEASES ARE INTERRELATED WITH THE LEVEL OF CYTOKINES AND NEUROPEPTIDES

¹valeria novikova*, ²Nikolay Anichkov, ²Elena Nevskaja, ¹Anastasia Listopadova, ^{1,2}Yulia Zamiatina, ¹Olga Gurina, ¹Olga Varlamova, ¹Aleksey Blinov. *St. Petersburg State Pediatric Medical University, Saint Petersburg, Russian Federation;* ²North-Western State Medical University named after I.I. Mechnikov, Saint Petersburg, Russian Federation

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Introduction IgE-mediated as well as non-IgE-mediated inflammation to the mucous membranes of the gastrointestinal tract is possible in children with allergic diseases. Purpose of the study: We investigated the morphological features of chronic esophagitis in children with atopic dermatitis (AtD) and bronchial asthma (BA) taking in account the cytokine status (IL-4, IL-5 and IL-13), the level of markers of eosinophilic inflammation (eosinophilic cationic ECP protein and eosinophilic neurotoxin EDN) and neuropeptides (neuropeptide Y (NPY) and substance P (SP)).

Patients and methods Study included 61 children (mean age 13.9 ± 2.36 years) having morphologically verified chronic esophagitis. 20 children suffered from concomitant AtD, 21 had esophagitis with BA. 20 children had esophagitis without concomitant atopic diseases. All children have undergone esophagogastroduodenoscopy and sampling of mucosal biopsy material from the middle third of the esophagus. Histologically we evaluated dystrophic, regenerative, inflammatory changes, vascular disorders and defects of the mucous membrane. In all children, the level of total IgE was determined and a blood test for IL-4, IL-5 and IL-13, ECP, EDN, NPY and SP was performed by ELISA. The statistical results were estimated by use of the program Stat Soft Statistica 12.0. for Windows-10.

Research results Morphological features of esophagitis in all studied groups equally frequent. The average level of total IgE in children with AtD and esophagitis was 186.6 ± 126.6 U/ml.; in the group of children with BA was $331,5 \pm 238,6$ U/ml. All children with esophagitis without atopic diseases had a level of total IgE within the normal range. In AtD, IL-4 levels (1.08 ± 0.47 pg/ml and 1.91 ± 0.88 pg/ml, $p < 0.05$), IL-5 (21.39 ± 15.47 pg/ml and 1.91 ± 0.88 pg/ml, $p < 0.05$), IL-13 (1.72 ± 1.55 pg/ml and 12.11 ± 6.10 pg/ml, $p < 0.05$), EDN (47.70 ± 34.83 pg/ml and 119.00 ± 64.26 pg/ml, $p < 0.05$) and NPY (40.62 ± 20.55 pg/ml and 160.44 ± 144.44 pg/ml, $p < 0.005$) were lower than with the combination of esophagitis with BA and had no differences with the group of children without atopy. Correlative relationship between morphological and immunological parameters in patients with atopy was found.

Conclusion Esophagitis in children with bronchial asthma is accompanied by higher levels of IgE and more pronounced changes in cytokine status than in atopic dermatitis. The correlative relationships between morphological and