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Aim: To investigate the relation between recurrent abdominal pain/discomfort and GL presence according to pain localization and frequency in adolescent.

Methods: 95 adolescents (aged 11–17, boys/girls ratio – 35/60), referred to a paediatric gastroenterology center (Krasnoyarsk, Siberia, Russia), were screened by Questionnaire on Pediatric Gastrointestinal Symptoms Rome III Version (QPGS-RIII) and tested to GL positivity by duodenal juice microscopy. No tested adolescents had chronic diarrhea, failure to thrive, immunodeficiency, erosions/ulcer according to upper endoscopy or celiac disease/inflammatory bowel disease. Pearson's chi-squared test was used.

Results: No associations were detected between GL positivity and recurrent abdominal pain/discomfort absence/presence, localizations, and frequency (Table 1).

Conclusion: We suppose that GL chronic infection does not play causative role in recurrent abdominal pain in the majority of adolescents, although it may be possible in some clinical groups such as patients with immunodeficiency, chronic diarrhoea, malabsorption syndrome, and weight loss.

Table 1. GL positivity percentages in adolescents with different RAP localization and frequency

QPGS-RIII QUESTIONS	Answers				p (Pearson Chi-square)
	Never	1–3 times a month	Once a week	Several times a week or every day	
In the last 2 months, how often did you have pain or an uncomfortable feeling in the upper abdomen above the belly button?	63% (10/16)	44% (7/16)	57% (13/23)	48% (19/40)	df=3 p = 0.65
In the last 2 months, how often did you have a belly ache or pain in the area around or below the belly button?	53% (19/36)	50% (16/32)	50% (5/10)	53% (9/17)	df = 3 p = 0.99

P03.03 | *Helicobacter pylori* Infection features in a paediatric gastroenterology reference centre in Portugal

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Aim: To describe *H. pylori* infection features in a Portuguese paediatric gastroenterology reference centre over the last five years.

Methods: Review of upper digestive endoscopies reports performed in the context of gastric complaints with biopsies and *H. pylori* culture in a paediatric gastroenterology reference centre, between 2011 and 2015; selection of patients with full clinical and follow-up data for evaluation of eradication rate after antibiotic susceptibility testing-based treatment.

Results: In the studied period, a total of 1182 endoscopies with biopsies for *H. pylori* culture were performed in patients with gastric complaints; 512 (43.3%) children/adolescents (average age 11.9, range 2–17, 45.8% male) were positive. Full clinical and follow-up data was available for 216 patients. Among these, the most common gastric complaints were abdominal pain (78.7%) and vomiting (11.0%). At endoscopy, 86.1% of these children/adolescents presented with gastric nodularity; incidence of duodenal ulcer was 2.3%. Overall primary resistance rate was 36.7% for CH, 15.7% for MZ and 7.4% for CIP, with no significant time trends. For patients harbouring a CH-susceptible strain, eradication rate after triple therapy (PPI + AMX + CH, bid, 14 days), was 90.4%, while for patients harbouring a CH-resistant strain, eradication rate after triple therapy (PPI + AMX + MZ, bid, 14 days) was 89.3%.

Conclusion: These results show a high prevalence of *H. pylori* infection in the last years, as well high primary resistance rates to macrolides among Portuguese children, highlighting the importance of culture and antibiotic susceptibility testing for the correct managing of the infection in this age group.

P03.04 | *Helicobacter pylori* prevalence, histological and antibiotic resistance patterns among paediatric patients, at a single hospital in Lisbon, during a 5-year period

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Background: Decreasing prevalence of *H. pylori* infection has been reported worldwide, in parallel with the improvement in sociodemographic conditions. In contrast, in Portugal, there is still a high prevalence of infection, including in pediatric population, and of gastric carcinoma.

Aim: This study aims to evaluate *H. pylori* prevalence, histological and antibiotic resistance patterns in symptomatic Portuguese children/adolescents attending a hospital in Lisbon.

Methods: Descriptive and retrospective study, with the review of diagnostic endoscopy records and gastric biopsies of 110 paediatric patients, between 2009 and June 2013.

Results: Globally, *H. pylori* infection rate was 51.8% (57/110), with the following distribution according to age: 54.9% (39/71) in children (≤ 12 years old) and 46.1% (18/39) in adolescents (13–17 years old). The mean annual prevalence was 30% in 2009, 37.5% in 2010, 47.1% in 2011, 58.1% in 2012 and 73.3% in 2013. Positive cases by histological evaluation revealed: chronic gastritis (96.5%), lymphoid aggregates (69.1%, $p = 0.0008$), acute inflammatory infiltrate (56.4%) and intestinal metaplasia (3.6%, $p < 0.001$). The intensity of the chronic inflammation was directly correlated with *H. pylori* infection; the majority of cases showed a moderate chronic inflammation ($p = 0.0002$). Antibiotic resistance was higher among adolescents for metronidazole (22.2% vs 18.2%) and ciprofloxacin (5.6% and 2.6%), while for clarithromycin it was higher among children (53.8% vs 44.4%).

Conclusion: The study highlights the clinical relevance of *H. pylori* infection in Portuguese paediatric patients, associated with high prevalence of infection, high resistance rate and relevant histological findings, pointing to a need of cost-effective management strategies.

P03.05 | *Helicobacter pylori* and erosive-ulcer lesions in gastroduodenal tract in the children of Siberia

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Aim: To study the prevalence of erosive-ulcer lesions in mucosa of gastroduodenal area in the children of ethnic populations of Siberia and their associations with *H. pylori* infection.

Materials and Methods: Cohorts of children had been formed out of the schoolchildren by picking up by random (7–17 years) in Evenkia (Extreme North) and Tyva (South of Siberia). We

performed gastroscopy followed by biopsy for those children. *H. pylori* was verified after Gimza coloring. In Evenkia we examined 83 Mongoloid children (the Evenks) and 80 Europeoids; in Tyva we examined 90 Mongoloids (the Tyvinians) and 91 Europeoids.

Results: In Evenkia erosive-ulcer lesions were diagnosed in 13.3% of the Europeoids and 4.9% of the Evenks ($p < 0.05$); in Tyva in 19.8% of the Europeoids and 11.0% of the Tyvinians correspondingly ($p > 0.05$). In Evenkia *H. pylori* was found in the Evenk children with destructive changes in 100% and in 83.5% of the children without mucosa defects; in the Europeoids in 93.8% and 71.6% correspondingly ($p > 0.05$). In Tyva in the Tyvinians the same indices amounted to 69.2% and 64.9% correspondingly; in the Europeoids to 58.8% and 41.9% correspondingly, ($p > 0.05$). Nonetheless, in Tyva in the infected Europeoids we marked critical share of erosive duodenitis (14.6%), which was considerably higher than in the infected Tyvinians (1.7%, $p < 0.05$).

Conclusion: In Siberia Mongoloids erosive-ulcer defects, including those associated with *H. pylori*, are determined less frequently in comparison with the Europeoids, which can be indicative of the more perfect protective mechanisms of a stomach in Siberia Mongoloids.

P03.06 | Relationship between plasma ferritin level and upper recurrent abdominal pain frequency in adolescents depending on the *helicobacter pylori* infection status

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Many worldwide studies have shown robust relation between iron deficiency markers and chronic *Helicobacter pylori* (*Hp*) infection in adolescents. However, data regarding this relation often did not take into consideration the possible clinical signs of chronic *Hp* infection/iron deficiency such as recurrent abdominal pain (RAP) presence, localization and severity.

Methods: 80 adolescents with RAP complaints (aged 11–17), referred to a pediatric gastroenterology center (Krasnoyarsk, Russia), were screened by Questionnaire on Pediatric Gastrointestinal Symptoms Rome III Version (QPGS-RIII) and tested to *Hp* positivity (*Hp* antigen ELISA monoclonal test in stool, Immundiagnostik, Germany). No tested adolescents had erosions or ulcer according to upper endoscopy. Plasma concentrations of ferritin was estimated with ELISA kit (Beckman