



CLIPPINGS

Theme: Gastroenterology and Hepatology

 **Relationship between quantitative sonographic measurements and serum biochemical parameters in childhood obesity** (Pediatr Gastroenterol Hepatol Nutr. 2021;24:470-82)


Childhood Obesity is global public health problem affecting not only the adolescents but also the young children, and its prevalence is increasing day by day. According to WHO, in 2016 over 340 million children and adolescents aged 5-19 were overweight or obese; 39 million under-five children were overweight or obese in 2020. Obesity is closely related with the development of metabolic syndrome and excessive fat accumulation in hepatocytes leading to the development of non-alcoholic fatty liver disease (NAFLD) in children. In this study published from Turkey involving 174 overweight or obese children aged between 3-18 years (mean age of 10.6 year), the relationship between various indicators of obesity [e.g., BMI z-score, abdominal wall fat thickness, serum biochemical markers (AST, ALT, HDL, LDL, total cholesterol, Insulin and HOMA-IR levels)] and sonographic measurements of fatty liver was assessed. Authors found a positive correlation between liver-kidney echogenicity ratio (LKER) and serum transaminase and glucose levels in obese children. A positive correlation was also found between BMI z-score and abdominal wall fat thickness (AWFT) with fasting insulin level and HOMA-IR value. Authors concluded that due to the wide availability of the ultrasonography, it can be used as an effective tool in the management of the childhood obesity. **Celiac disease in children: An association with drug-resistant epilepsy** (Pediatr. Neurol 2021;120:12-17)

Seizures are one of the neurological manifestations in children with celiac disease. In the present study published from University of Utah, authors did a retrospective chart review to compare the children having epilepsy and celiac disease ($n=56$) with 168 age- and sex-matched controls having only epilepsy, to analyze the effect of gluten-free diet on seizure burden. Study results showed that the children with celiac disease had a significantly higher percentage of drug-resistant epilepsy compared to control group, but comparable to the general population. Adherence to the gluten free diet along with the medications reduces the disease burden in children with celiac disease having drug resistance epilepsy.


 **Neutrophil to lymphocyte ratio and gastrointestinal involvement among Henoch Schonlein purpura patients: A systematic review and meta-Analysis** (J Pediatr Gastroenterol Nutr. 2021;73:437-43)

Recently the Neutrophil to lymphocyte ratio has attracted much attention as a marker of systemic inflammation. A very simple investigation which is easily available and does not add to the cost of routine investigations and has been tested in various clinical conditions. In the current study the authors does the meta-analysis of the studies published on Henoch Schonlein purpura (HSP), to evaluate the difference in the neutrophil to lymphocyte

ratio among the HSP patients presenting with and without gastrointestinal manifestations. They have analyzed 6 studies with low heterogeneity, and found that the patients of HSP with gastrointestinal involvement have higher neutrophil to lymphocyte ratio compared to those without gastrointestinal involvement [mean difference of 0.88 (95% CI 0.55, 1.22)]. Authors concluded that the neutrophil to lymphocyte ratio in cases with HSP could serve as the marker of gastrointestinal involvement.

 **Do children with constipation have increased risk of asthma? Real-world data from a Nationwide population-based cohort study** (Front Pediatr. 2021; 9:714406)

Research have shown that the alterations in the intestinal microflora have an important impact on the human body, and can be related to various chronic medical conditions. Recently it has been propounded that the alteration in the intestinal microbiota may have a profound effect on lung disease – gut-lung axis (GLA). In this nationwide population based cohort study, researchers have tried to assess the role of constipation as a risk factor for development of Asthma. In this equal number of matched children with and without constipation (10636 each) were enrolled from the Taiwan's National Health Insurance Research Database, and analyzed for the development of asthma. Results have shown that, after adjustment for sex, age, comorbidities, and use of medications, children with constipation had a 2.36-fold higher risk for developing asthma than non-constipated individuals. Also the severity of constipation was related to the increased risk of development of asthma in children. This study further highlights the important role of gut flora in development of disease.

 **Efficacy of polyethylene glycol 3350 as compared to lactulose in treatment of ROME IV criteria-defined pediatric functional constipation: A randomized controlled trial** (Indian J Gastroenterol. 2021;40: 227-33)

Functional constipation constitutes up to ~ 30% of total cases coming to a pediatric gastroenterologist's outpatient department. Polyethylene glycol (PEG) has been recommended as the first line of the management in cases of functional constipation. In the current study, to compare the efficacy of PEG 3350 (0.7–1.5 mg/kg/day) with lactulose (0.7–2.0 mg/kg/day); 100 children with functional constipation were randomized to receive either of the treatment. Results revealed that there was statistically significant increase in the median (min, max) stool frequency within 1 week in the PEG 3350 group as compared to the lactulose group [1 (0, 3) to 8 (3, 39) vs. 1 (0, 3) to 7 (1, 17)] (p -value < 0.01), which was maintained over a period of 4 weeks. There was a statistically significant reduction in the painful bowel movements in the PEG 3350 group as compared to the lactulose group at the end of first week. Thus, it concluded that the use of PEG 3350 is associated with faster symptom relief and the significant improvement in pediatric functional constipation.

RAJESH KUMAR MEENA
raj.mamc@gmail.com