

Publications (Citations and Author's conclusions) by ISPGHAN members on topics related to pediatric gastroenterology, hepatology and nutrition (Original articles and reviews published in indexed journals)

September

Shava U, Yachha SK, Srivastava A, Poddar U, Sen Sarma M. Assessment of stool frequency and colonic transit time in Indian children with functional constipation and healthy controls. Indian J Gastroenterol. 2018 Sep;37(5):410-415

Indian children have significantly higher stool frequency and shorter colonic transit time, which are different compared to the reported figures from the West. Most of the Indian children with functional constipation had normal colonic transit time.

October

Sen Sarma M, Yachha SK, Rai P, Neyaz Z, Srivastava A, Poddar U. Cholangiopathy in children with extrahepatic portal venous obstruction. J Hepatobiliary Pancreat Sci. 2018 Oct;25(10):440-447

A majority of children with extrahepatic portal venous obstruction have asymptomatic cholangiopathy and should be routinely evaluated for Portal cavernoma cholangiopathy at the time of first presentation by a combination of magnetic resonance cholangiography-portovenography (MRC - MRPV). Additionally, superior mesenteric vein block with portal cavernoma results in significantly higher changes of cholangiopathy on MRC and Endoscopic ultrasound.

Nabi Z, Shava U, Sekharan A, Nageshwar Reddy D. Diagnosis of Hirschsprung's disease in children: Preliminary evaluation of a novel endoscopic technique for rectal biopsy. JGH Open. 2018 Oct 4;2(6):322-326.

Rectal biopsy using endoscopic mucosal resection with a band ligation device is feasible, safe, and provides adequate sample for the evaluation of HD in children.

Yachha SK, Srivastava A, Mohan N, Bharadia L, Sarma MS; Management of Childhood Functional Constipation: Consensus Practice Guidelines of Indian Society of Pediatric Gastroenterology, Hepatology and Nutrition. Indian Pediatr. 2018 Oct 15;55(10):885-892

Functional constipation should be diagnosed only in the absence of red flags on history and examination. Those with impaction and/or retentive incontinence should be disimpacted with polyethylene glycol (hospital or home-based). Osmotic laxatives (polyethylene glycol more than 1 year of age and lactulose/lactitol less than 1 year of age) are the first line of maintenance therapy. Stimulant laxatives should be reserved only for rescue therapy. Combination therapies of two osmotics, two stimulants or two classes of laxatives are not recommended. Laxatives as maintenance therapy should be given for a prolonged period and should be tapered off gradually, only after a successful outcome. Essential components of therapy for a successful outcome include counselling, dietary changes, toilet-training and regular follow-up.

November

Lal BB, Sood V, Khanna R, Alam S. How to identify the need for liver transplantation in pediatric acute-on-chronic liver failure? Hepatol Int. 2018 Nov;12(6):552-559

APASL ACLF Research Consortium-Acute-on-chronic liver failure (AARC-ACLF) and chronic liver failure-sequential organ failure assessment (CLIF-SOFA) models are superior to other prognostic scores in pediatric ACLF. The scores are dynamic and a patient with either of these scores ≥ 11 at admission and/or a rising score at day 4 has high likelihood of death and needs to be urgently listed for liver transplantation.

Pradhan S, Jagadisan B. Yield and Examiner Dependence of Digital Rectal Examination in Detecting Impaction in Pediatric Functional Constipation. J Pediatr Gastroenterol Nutr. 2018 Nov;67(5):570-575.

Digital Rectal Examination detects cases of impaction not discernible by other means. Such a finding may be comparable between examiners. These children may be identified by other clinical characteristics.

December

Kumari N, Kumar A, Thapa BR, Modi M, Pal A, Prasad R. Characterization of mutation spectrum and identification of novel mutations in ATP7B gene from a cohort of Wilson disease patients: Functional and therapeutic implications. Hum Mutat. 2018 Dec;39(12):1926-1941.

After sequencing 21 exons of ATP7B gene from 50 WD patients we identified 28 variants comprising, eight variations affecting 23% alleles were first time reported in Indian cohort. Functional analysis of these novel variants in five different cell lines lacking inherent ATP7B expression demonstrated sensitivity to CuCl₂ - treatment, experiencing augmented cellular copper retention and decreased copper excretion as well as ceruloplasmin secretion to that of wildtype-ATP7B expressing cells. Interestingly, pharmacological chaperone 4-phenylbutyrate, a clinically approved compound, partially restored protein function of ATP7B mutants. These findings might enable novel treatment strategies in WD by clinically enhancing the protein expression of mutant ATP7B with residual copper export activity.

Bolia R, Rajanayagam J, Hardikar W. Lower 6-MMP/6-TG Ratio May Be a Therapeutic Target in Pediatric Autoimmune Hepatitis. J Pediatr Gastroenterol Nutr. 2018 Dec;67(6):695-700.

Thiopurine metabolite levels should be measured in patients with AIH who have experienced a loss of remission. A 6-Methymercaptopurine/6-Thioguanine ratio of < 4 with the addition of allopurinol could be

considered in these patients.

Rathi N, Desai S, Kawade A, Venkatramanan P, Munshi R, Kang G, Babji S, Bavdekar A, et al. A Phase III open-label, randomized, active controlled clinical study to assess safety, immunogenicity and lot-to-lot consistency of a bovine-human reassortant pentavalent rotavirus vaccine in Indian infants. Vaccine. 2018 Dec 18;36(52):7943-7949.

Lot-to-lot consistency of bovine-human rotavirus reassortant pentavalent vaccine ROTASIIL® was demonstrated in terms of geometric mean concentration ratios of IgA antibodies. The vaccine safety and immunogenicity profiles were similar to those of Rotarix®.

January

Rammohan A, Reddy MS, Narasimhan G, Rajalingam R, Kaliamoorthy I, Shanmugam N, Rela M. Auxiliary Partial Orthotopic Liver Transplantation for Selected Noncirrhotic Metabolic Liver Disease. Liver Transpl. 2019 Jan;25(1):111-118

The largest series (n = 12) of Auxiliary Partial Orthotopic Liver Transplant (APOLT) for Non - Cirrhotic metabolic liver disease (NCMLD). APOLT is a safe and effective alternative to OLT and may even be better than OLT due to lesser physiological stress and the smoother postoperative period for selected patients with NCMLD.

Singh SK, Borkar V, Srivastava A, Mathias A, Yachha SK, Poddar U. Need for recognizing atypical manifestations of childhood sporadic acute viral hepatitis warranting differences in management. Eur JPediatr. 2019 Jan;178(1):61-67

Twenty-two percent of children with sporadic acute viral hepatitis have atypical manifestations, more often with HAV infection, and prolonged cholestasis is most common. Recognition of these manifestations ensures correct diagnosis and treatment.

Nagrul A, Sarma MS, Matthai J, Kukkle PL, Devarbhavi H, Sinha S, Alam S, Bavdekar A, Mohan N, Sathiyasekaran M,

Poddar U, Sibal A, Sankaranarayanan S, Srivastava A, Thapa BR, Wadia PM, Yachha SK, Dhawan A, et al. Wilson's Disease: Clinical Practice Guidelines of the Indian National Association for Study of the Liver, the Indian Society of Pediatric Gastroenterology, Hepatology and Nutrition, and the Movement Disorders Society of India. J Clin Exp Hepatol. 2019 Jan-Feb;9(1):74-98.

Experts from national societies from India representing 3 disciplines, hepatology (Indian National Association for Study of the Liver), pediatric hepatology (Indian Society of Pediatric Gastroenterology, Hepatology and Nutrition), and neurology (Movement Disorders Society of India) got together to evolve these guidelines.

While ceruloplasmin and 24-h urine copper continue to be important, there is little role of serum copper and penicillamine challenge test in the diagnostic algorithm. A new scoring system - Modified Leipzig score has been suggested with extra points being added for family history and serum ceruloplasmin lower than 5 mg/dl. Liver dry copper estimation and penicillamine challenge test have been removed from the scoring system. Rising bilirubin and worsening encephalopathy are suggested as indicators predicting need for liver transplant but need to be validated. The clinical practice guidelines provide recommendations for a comprehensive management of WD which will be of value to all specialties.

Puttaiah Kadyada S, Thapa BR, Kaushal K, Walia R, Rana SV, Dhaka N, Lal SB, Prasad R, Das S, Thakur R, Kamal K. Incomplete functional and morphological recovery after acute and acute recurrent pancreatitis in children. J Gastroenterol Hepatol. 2019 Jan;34(1):293-301

There was high frequency of biochemical evidence of exocrine insufficiency in Acute Pancreatitis (AP) and Acute Recurrent Pancreatitis (ARP). β -Cell function (2-h oral glucose tolerance test to calculate oral disposition index) was preserved among AP but

was poor in ARP. Nearly one-third showed morphological changes in imaging.

February

Poddar U, Singh S, Pawaria A, Srivastava A, Yachha SK. Aetiological spectrum, clinical differentiation and efficacy of polyethylene glycol over lactulose in children with constipation: Experience of 316 cases. J Paediatr Child Health. 2019 Feb;55(2):162-167.

Functional Constipation is the most common cause of constipation in children. Presence of delayed passage of meconium, growth failure and absence of retentive posturing and absent faecal impaction raise the suspicion of an organic cause. Both lactulose and Polyethylene glycol (PEG) are equally effective. PEG has an edge over lactulose as the need for switch over was uncommon.

Shanmugam NP, Valamparampil JJ, Reddy MS, Al Said KJ, Al-Thihli K, Al-Hashmi N, Al-Jishi E, Isa HMA, Jalan AB, Rela M. Auxiliary Partial Orthotopic Liver Transplantation for Monogenic Metabolic Liver Diseases: Single-Centre Experience. JIMD Rep. 2019;45:29-36

A total of 13 APOLT procedures were performed for MLD during the study period. The underlying aetiologies being propionic academia-5, citrullinemia type 1-3 and Crigler-Najjar syndrome type 1-5 cases respectively. APOLT is a safe procedure, which provides good metabolic control and improves the neurodevelopment in children with selected MLD.

Nagrál A, Jhaveri A, Sawant S, Parikh NS, Nagral N, Merchant R, Gandhi M. Treatment of Chronic Hepatitis C Infection with Direct Acting Antivirals in Adolescents with Thalassaemia Major. Indian J Pediatr. 2019 Feb;86(2):148-153

Generic Direct Acting Antivirals are effective and safe in Thalassaemia Major adolescents with Hepatitis C Virus.

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