Publications by ISPGHAN members in Pubmed Indexed Journals (October 2020 – February 2021)

OCTOBER 2020

[1.] Mahajan S, Lal BB, Sood V, Khillan V, Khanna R, Alam S. Difficult-to-treat ascitic fluid infection is a predictor of transplant-free survival in childhood decompensated chronic liver disease. Indian J Gastroenterol. 2020 Oct; 39(5):465-472. doi: 10.1007/s12664-020-01081-4. Epub 2020 Oct 24.

This was a retrospective study aimed to assess the clinico-bacteriological profile of ascitic fluid infection (AFI) and its impact on outcome in childhood chronic liver disease (CLD). The authors concluded that children with ascites should undergo a diagnostic paracentesis in presence of fever, increasing or new-onset ascites, and/or increased TLC. Death or liver transplant is more likely due to advanced liver disease (high PELD /HE) and in those with difficult-to-treat AFI.

NOVEMBER 2020

[2.] Reddy PM, Kulkarni S, Nabi Z, Kasle S, Chavan R, Pal P, Shrimal P, Choudhary H, Sayyed M, Reddy DN. Single balloon enteroscopy in children for evaluation of small bowel diseases in children: A large, tertiary center study. J Pediatr Surg. 2020 Nov 2:S0022-3468(20)30778-8. doi: 10.1016/j.jpedsurg.2020.10.025. Epub ahead of print.

In this study, authors have aimed to evaluate the safety and utility of single balloon enteroscopy (SBE) in children. 189-SBE procedures (males 117, mean age 15.1 ± 2.76, range 3-18 years) were performed in 174-children. The indications for SBE were chronic abdominal pain in 119 (68.4%), gastrointestinal bleed 17 (9.8%), chronic diarrhea 17 (9.8%) and vomiting 13 (7.5%). Antegrade, retrograde and combined SBE were performed in 98 (51.8%), 77 (40.7%), 7 (3.7%) children, respectively. The mean length of small bowel intubation in antegrade and retrograde SBE groups were 168.9 ± 58.6 cm and 120.7 ± 52.1 cm, respectively. Overall, a positive finding was seen in 117 (67.2%) cases. The most common findings were ileal and jejunal ulcers with or without strictures in 76 (64.9%) children. A total of 18 therapeutic enteroscopic procedures were performed. There were no major adverse events. Authors have concluded that SBE is a safe and effective procedure for the evaluation and management of small bowel diseases in children.

[3.] Kesavelu D Sr, Rohit A, Karunasagar I, Karunasagar I. Composition and Laboratory Correlation of Commercial Probiotics in India. Cureus. 2020 Nov 5; 12(11):e11334. doi: 10.7759/cureus.11334.

Out of the 20 chosen probiotics eight products were single strain and 12 products were multiple strains. These probiotics showed very poor correlation between the declared contents on the pack and lab values in viable cell count colonies, the genus and species strain identification, presence of contaminants and these were confirmed with 16s RNA and next generation sequencing. They have concluded that poor correlation in the quality and quantity of probiotics proves that the label claim and actual claim of these "drugs" show exceptionally poor correlation and raises safety concerns in clinical use, especially in vulnerable age groups such as neonates, children and the elderly.

[4.] Aneja A, Meena S, Venkatesh V, Lal SB. Pulmonary thromboembolism: A rare complication of amoebic liver abscess in a child. JGH Open. 2020 Nov 9;5(1):169-171. doi: 10.1002/jgh3.12440.

Amoebic liver abscess is common in children in developing countries due to lack of hygiene and sanitary conditions. Inferior vena cava thrombosis is a rare complication of this disease, with only a few cases reported in the literature, where this thrombus led to pulmonary thromboembolism. Authors have reported the case of a 7-year-old child with amoebic liver abscess who developed pulmonary thromboembolism and was promptly diagnosed and managed.

[5.] Surender Kumar Yachha , Mridul Chandra Das,Praveen Kumar, Lokesh Sharma , Sumit Kumar Singh, Moinak Sen Sarma,Anup Kumar, Anshu Srivastava,Ujjal Poddar

Development of integrated neonatal cholestasis card for early recognition and referral of neonatal cholestasis. Indian J Gastroenterol. 2020 Dec; 39(6):584-590. **doi: 10.1007/s12664-020-01094-z. Epub 2020 Nov 11.**

In this multi-center study,the authors aimed to evaluate the reliability of the stool card in the Indian population and develop an integrated neonatal cholestasis (NC) card with (a) urine color identification and (b) stool color for early referral. Of 319 children (Biliary Atresia {BA} [n = 58], non-BA [n = 62], and controls [n = 199]), parents correctly detected dark yellow urine in all NC. Stool samples of 50 (86%) children with BA were unanimously labeled as pale by all observers. The average inter-item correlation showed good correlation between parents and trainee doctors of 0.77 and 0.64 with paramedical staff. The authors conclude that integrated NC card proposes to recognize neonatal cholestasis at an early stage irrespective of etiology. It is a major step towards public health benefit both at the community as well as physicians' levels to enable early detection and timely referral and management.

[6.] Banerjee R, Pal P, Nabi Z, Shava U, Ganesh G, Reddy DN. Very early onset inflammatory bowel disease in a South Asian country where inflammatory bowel disease is emerging: a distinct clinical phenotype from later onset disease. Intest Res. 2020 Nov 20. doi: 10.5217/ir.2020.00107. Epub ahead of print.

Authors have aimed to evaluate characteristics of VEOIBD and later onset PIBD (LO-PIBD) in India.They have performed a retrospective analysis of a large, prospectively maintained IBD registry. PIBD was divided in to VEOIBD (< 6 years) and LO-PIBD (6-17 years). Demographic data,

disease characteristics and treatment were compared between the PIBD groups and with other Asian/Western studies as well as the adult patients of the registry. Of 3,752 IBD patients, 292 (7.8%) had PIBD (0-17 years) (175 Crohn's disease [CD], 113 ulcerative colitis [UC], 4 IBD-undifferentiated; 22 VEOIBD [7.5%], and 270 LO-PIBD [92.5%]). VEOIBD patients had more severe disease compared to LO-PIBD in both UC (P= 0.003) and CD (P< 0.001). Familial IBD was more common in VEOIBD (13.6%) compared to LO-PIBD (9.2%). Ileal disease (L1) was an independent risk factor for diagnostic delay in pediatric CD. Diagnostic delay (> 6 months) was significantly lower in VEOIBD (40.9%) than in LO-PIBD (78.8%) (P< 0.001). Compared to other Asian and Western studies, extensive UC (72.5%) and complicated CD (stricturing/penetrating: 42.7%) were relatively more common. Perianal CD was relatively less frequent (7.4%). PIBD had a significantly higher number of complicated and ileal CD and extensive UC comparison to adult cohort of the registry.

[7.] Surinder Singh Rana, Sadhna Bhasin Lal. Esophageal obstruction in a child secondary to large walled-off necrosis: rescue transmural drainage using forward-viewing echoendoscope. Annals of Gastroenterology. 2020 November 20. DOI: https://doi.org/10.20524/aog.2020.0555.Published **online ahead of print.**

This was a case report of a 12 year old child with walled of pancreatic necrosis (WOPN) in the lesser sac, published as an image of the month. Authors initially attempted endoscopic ultrasound (EUS)-guided transmural drainage of the WOPN using a conventional curved linear array echoendoscope .However, the echoendoscope could not be negotiated across the gastroesophageal junction (GEJ) because of extrinsic compression by the WON resulting in acute angulation. Subseuently endoscopic ultrasound (EUS)-guided drainage using the forward-viewing echoendoscope was done: a guidewire was coiled inside the walled-off necrosis and the access site was dilated using 4-mm biliary balloon dilator. A 14-mm wide fully covered bi-flanged self-expanding metallic stent was deployed under EUS and fluoroscopic guidance.

[8.] Venkatesh V, Aneja A, Kumar A, Ramachandran R, Lal SB. Bilateral renal cortical necrosis in a child with acute pancreatitis. Saudi J Kidney Dis Transpl. 2020 Nov-Dec; 31(6):1395-1398. doi: 10.4103/1319-2442.308353.

There are many causes for the occurrence of renal cortical necrosis in children, with severe pancreatitis being a rarity. In this case report, authors have described a child with severe acute pancreatitis complicated by bilateral RCN.

DECEMBER 2020

[9.] Bapaye A, Dashatwar P, Biradar V, Biradar S, Pujari R. Initial experience with per-rectal endoscopic myotomy for Hirschsprung's disease: medium and long term outcomes of the first case series of a novel third-space endoscopy procedure. Endoscopy. 2020 Dec 8. doi: 10.1055/a-1332-6902. Epub ahead of print.

Per-rectal endoscopic myotomy (PREM) is a novel third-space endoscopy technique for treating short-segment (SS)-HSCR.Author havedone a retrospective study of SS-HSCR patients diagnosed on history, contrast enema, rectal biopsies, and anorectal manometry, and treated by PREM. The aganglionic segment was mapped before PREM was performed using third-space endoscopy principles. Stool frequency and laxative usage before and after PREM were compared. They have concluded that PREM is a safe and effective minimally invasive procedure to treat SS-HSCR and results in long-term response.

[10.]Venkatesh V, Lal SB, Rana SS, Anushree N, Aneja A, Seetharaman K, Saxena A. Pancreatic ascites and Pleural Effusion in Children: Clinical Profile, Management and Outcomes. Pancreatology. 2021 Jan; 21(1):98-102. doi: 10.1016/j.pan.2020.12.010. Epub 2020 Dec 14.

A retrospective review of children with pancreatic ascites (PA) / pancreatic pleural effusion (PPE) diagnosed and managed at authors' centre over the last 4 years was performed. The clinical, biochemical, radiological and management profiles were analyzed. Conservative management (nil per oral, octreotide and drainage using either percutaneous catheter or repeated paracentesis) and ERCP plus transpapillary stenting results in resolution of majority of pediatric PA/PPE. Children presenting with PA/PPE needs to be evaluated for CP.

[11.] Cherukuru R, Menon J, Patel K, Thambidurai R, Subbiah K, Shanmugam NP, Reddy MS, Rela M. Uncommon presentation of a recurrent diaphragmatic hernia after pediatric liver transplantation. Pediatr Transplant. 2020 Dec; 24(8):e13790. doi: 10.1111/petr.13790.

Diaphragmatic hernia (DH) is a rare but well-recognized complication of pediatric liver transplantation (PLT). However, a recurrent DH in the setting of PLT has not been reported. We report the case of a child who had previously undergone a DH repair early after PLT and presented more than two years later with atypical findings of severe sepsis and a tender abdominal swelling.

[12.] Pawaria A, Sood V, Lal BB, Khanna R, Bajpai M, Alam S.Ninety days transplant free survival with high volume plasma exchange in Wilson disease presenting as acute liver failure.J Clin Apher. 2021 Feb;36(1):109-117. doi: 10.1002/jca.21848. Epub 2020 Dec 28.

The aim was to study the efficacy and safety of high volume plasma exchange (HVPE) in Wilson disease presenting as acute liver failure (WD-ALF) Outcome measure was transplant free survival (TFS) at 90 days post enrollment. median days of survival was 38 days (IQR 12-63) in HVPE group vs 14 (IQR 5-22) days in standard medical therapy group.

JANUARY 2021

[13.] Pankaj Puri , Radha K. Dhiman , Sunil Taneja, Puneeta Tandon, Manuela Merli , Anil C. Anand,Anil Arora , Subrat K. Acharya , Jaya Benjamin, Yogesh K. Chawla, Sunil Dadhich , Ajay Duseja,C. E. Eapan , Amit Goel , Naveen Kalra , Dharmesh Kapoor, Ashish Kumar, Kaushal Madan,Aabha Nagral, Gaurav Pandey , Padaki N. Rao, Sanjiv Saigal , Neeraj Saraf , Vivek A. Saraswat,Anoop Saraya , Shiv K. Sarin , Praveen Sharma, Shalimar , Akash Shukla, Sandeep S. Sidhu ,Namrata Singh, Shivaram P. Singh , Anshu Srivastava , Manav Wadhawan.Nutrition in Chronic Liver Disease: Consensus Statement of the Indian National Association for Study of the Liver. J Clin Exp Hepatol 2021; 11:97–143.

This consensus statement of the Indian National Association for Study of the Liver provides a comprehensive review of nutrition in chronic liver disease and gives recommendations for nutritional screening and treatment in specific clinical

scenarios of malnutrition in cirrhosis in adults as well as children with chronic liver disease and metabolic disorders.

[14.] Mandelia A, Sharma MS, Siddiqui Y, Mishra A. Division of long residual spur after Duhamel's pull through with endo-GIA stapler under colonoscopic guidance. J Indian Assoc Pediatr Surg 2021;26:69-70.

The authors have concluded that the division of residual spur after Duhamel's procedure with endoGIA stapling device under colonoscopic guidance if feasible and safe by reporting the procedure in a 6 year old girl who had undergone a levelling colostomy in the newborn period followed by a Duhamel's pull through at 1 year of age for Hirschsprung's disease It avoids the need for a redo laparotomy for dividing the spur, especially in cases where the spur is high and long and not accessible per anally for division. Furthermore, realtime assessment of the completeness of spur division is ensured

[15.] Koul R, Lal BB, Pamecha V, Sarin S, Alam S. Liver Transplantation Reverses Hepatic Myelopathy in 2 Children With Hepatitis A Infection. Child Neurol Open. 2021 Jan 11;8:2329048X20983763. doi: 10.1177/2329048X20983763.

Hepatic myelopathy following acute fulminant liver failure is rarely seen and reported. Two children in this series had hepatic myelopathy following HE after acute fulminant hepatitis A infection, which reversed after liver transplantation

[16.] Mehtab W, Sachdev V, Singh A, Agarwal S, Singh N, Malik R, Malhotra A, Ahuja V, Makharia G. Gluten content in labeled and unlabeled gluten-free food products used by patients with celiac disease. Eur J Clin Nutr. 2021 Jan 18. doi: 10.1038/s41430-020-00854-6. Epub ahead of print.

Authors have aimed to evaluate gluten content in labeled, imported, and non-labeled gluten free (GF) food products currently available in the Indian market. They have concluded that a substantial proportion (10.1%) of GF food products (both labeled and non-labeled) available in India have gluten content greater than the prescribed limits of <20 mg/kg. Physicians, dietitians, support group, and patients with celiac disease should be made aware of this fact and regulatory bodies should ensure quality assurance.

FEBRUARY 2021

[17.] Bhardwaj, Anubhuti; Deswal, Shivani; Mohan, Neelam Acute Pancreatitis Induced Thrombotic **Microangiopathy with Acute Renal Failure: A Rare Complication!, JPGN Reports: February 2021 - Volume 2 - Issue 1 - p e038 doi: 10.1097/PG9.0000000000000038**

Authors have reported an adolescent girl with severe acute pancreatitis presenting with anuria and diagnosed as microangiopathic hemolytic anemia with thrombocytopenia (MAHA-T). Early initiation of plasma exchange therapy yielded a good outcome.

[18.] Bolia R, Mandal D, Bhat NK. Gastrocutaneous fistula secondary to drainage tube penetration in a child: Closure using argon plasma coagulation. Indian J Gastroenterol. 2021 Feb; 40(1):94-95. doi: 10.1007/s12664-020-01100-4.

In this case report published as an image authors have reported on the successful closure of gastrocutaneous fistula resulting from intercostal catheter drain (ICD) necessitated during the surgical treatment of foregut duplication cyst in a 4 year old girl with argon plasma coagulation.

[19.] Maji P, Malik R, Madhusudhan KS, Sharma S. Utility and Safety of Transjugular Liver Biopsy in Children. Indian J Pediatr. 2021 Feb 2. doi: 10.1007/s12098-020-03650-z. Epub ahead of print.

The authors have aimed to evaluate the safety, efficacy and utility of transjugular liver biopsy (TJLB) in pediatric patients with contraindications to PLB (percutaneous liver biopsy). They have observed that technical success rate with adequate biopsy sample was 95.8% (23/24) with no major complications. A new diagnosis was established in 9 (37.5%) cases and 14 (58.34%) biopsies confirmed the initial diagnoses. Four cases also revealed additional information guiding overall management. It was concluded that TJLB is a safe and useful procedure in children.

[20.] Das S, Lal SB, Venkatesh V, Bhattacharya A, Saxena A, Thapa BR, Rana SV. Gallbladder motility in children with celiac disease before and after gluten-free diet. Ann Gastroenterol. 2021;34(3):385-391. doi: 10.20524/aog.2021.0593. Epub 2021 Feb 5.

Gallbladder (GB) hypomotility has been reported in adults with celiac disease (CD), but there is no literature on GB dysfunction in children with CD. Authors have aimed to study GB motility in children with CD, before and after a gluten-free diet (GFD), using ultrasonography (USG) and technetium-99 labeled mebrofenin hepatobiliary scintigraphy (HBS).They have concluded that GB function is impaired in at least 16% of children with CD at diagnosis and is reversible with GFD. GB dysfunction is significantly associated with a delayed diagnosis and may be a part of general gastrointestinal dysmotility.

[21.] Chaubal G, Nanavati AJ, Biradar V, Tambe S, Hatimi H, Deshpande A, Hanchnale P, Bhalerao S. Monosegment Liver Allografts for Liver Transplantation in Infants Weighing Less Than 6 kg: An Initial Indian Experience. Transplant Proc. 2021 Jun;53(5):1670-1673. doi: 10.1016/j.transproceed.2021.01.005. Epub 2021 Feb 8.

Living donor liver transplantation in small infants is a significant challenge. Liver allografts from adults may be large in size. This is accompanied by problems of graft perfusion, dysfunction, and the inability to achieve primary closure of the abdomen. Monosegment grafts are a way to address these issues. Two recipients in our cohort weighed less then 6 kg. The prospective left lateral segments from their donors were large for size. Therefore, monosegment 2 liver grafts were harvested. Data regarding the preoperative, intraoperative, and postoperative events in the donor and the recipient were recorded. Monosegment 2 liver allografts are safe and effective for use in living donor liver transplantation in small infants weighing less than 6 kg.

[22.] Reddy MS, Menon J, Hakeem AR, Murugesan S, Narasimhan G, Shanmugham N, Rela M. How can we reduce the impact of COVID-19 pandemic on timely access to liver transplantation in children? Hepatol Int. 2021 Feb;15(1):215-216. doi: 10.1007/s12072-020-10128-9. Epub 2021 Jan 27.

In this letter to the editor, authors have shared their centre data which shows that while pediatric referrals for LT reduced during the COVID-19 pandemic, children referred during this period were sicker, probably refecting a level of selective referral during this period. Timely pediatric LDLT could be safely performed for most children via a COVIDfree clinical pathway. Increased use of electronic documentation and

remote authentication may avoid logistic delays to performing LDLT for these sick children.

[23.] Ritu -, Madhusudhan KS, Malik R. Hepatic Visceral Larva Migrans Causing Hepatic Artery Pseudo-Aneurysm. Indian Pediatr. 2021 Feb 15; 58(2):184-186. doi: 10.1007/s13312-021-2141-6.

In this clinical case letter authors have reported a successfully managed case of hepatic visceral larva migrans (VLM) in a 12 year old girl who presented with high grade fever, jaundice and right upper abdominal pain with progressive abdominal distension associated with weight loss for four months and a history of recurrent black tarry stools requiring blood transfusions and highlight that hepatic VLM can be a rare cause of hepatic artery pseudoaneurysm resulting in upper gastrointestinal bleeding. They conclude that early recognition and comprehensive management is of utmost importance.

[24.] Bhave S, Sapru A, Bavdekar A, Jain R, Debnath K, Kapatkar V. Long term Immunogenicity of Single Dose of Live Attenuated Hepatitis A Vaccine in Indian Children - Results of 15-year Follow-up. Indian Pediatr. 2021 Feb 19:S097475591600293. Epub ahead of print. PMID: 33612491.

The objective of this study was to measure anti-HAV antibodies 15 years after a single dose of live attenuated hepatitis A vaccine in Indian children administered in 2004.The study concluded that single dose of live attenuated hepatitis A vaccine in Indian children demonstrated robust immunogenicity at 15 years post vaccination with a seroprotection rate of 86.2%..

[25.] Vijay P, Lal BB, Sood V, Khanna R, Patidar Y, Alam S. Dynamic Optic Nerve Sheath Diameter (ONSD) guided management of raised intracranial pressure in pediatric acute liver failure.Hepatol Int. 2021 Apr; 15(2):502-509. doi: 10.1007/s12072-021-10139-0. Epub 2021 Feb 24.

The objectives were to evaluate the role of optic nerve sheath diameter (ONSD) to detect raised intracranial pressure (ICP) in pediatric acute liver failure (PALF), study the variations in ONSD with ICP-lowering measures and to evaluate its prognostic role. The study concluded that ONSD is a simple, bedside, inexpensive, reproducible and repeatable modality to assess ongoing change in ICP in PALF. ONSD more than 4.55 mm suggests raised ICP. The goal should be to bring ONSD down to less than 4.6 mm within 24 hour by aggressive anti-ICP therapy to achieve favourable outcome.

MISSED INADVERTENTLY IN PREVIOUS ISSUES

[1.] Poddar U, Yachha SK, Srivastava A, Kumari N. Pediatric inflammatory bowel disease: Is it really uncommon in Asian children? JGH Open. 2020 Apr 26; 4(5):860-866. doi: 10.1002/jgh3.12330.

Authors have analyzed their centre experience of pediatric inflammatorybowel disease (IBD) using a prospectively maintained data of 105 consecutive children [median age 12 (IQR:7-14) years, 71 males] with IBD from July 2001 through June 2016. They have concluded that IBD is not uncommon, and the incidence seems to be increasing among Indian children in last 5 years compared to previous 10 years. UC (52%) is more common than CD (41%) and is more often an extensive disease (75%). CD is mainly an inflammatory phenotype (65%). The majority of children with IBD required an immunomodulator to maintain remission. In CD, there was a significant reduction in the use of empirical antitubercular therapy (76%, $P = 0.008$) with time.

[2.] Thirumal P, Sumathi B, Nirmala D. A Clinical Entity Often Missed-Solitary Rectal Ulcer Syndrome in Children. Front Pediatr. 2020 Jul 17; 8:396. doi: 10.3389/fped.2020.00396.

Authors have aimed to study the clinical profile and treatment response of solitary rectal ulcer syndrome in children (SRUS). The median age of presentation among 24 children was 8 years with majority (75%) above 5 years. All children presented with intermittent rectal bleeding with median duration of 5.5 months. The other presenting symptoms documented were hard stool (79%), mucorrhea (70%), and abdominal pain (58%). One child presented with rectal prolapse. On colonoscopy, 46% had single ulcer while another 46% had multiple ulcers and 8% had polypoidal lesion. All lesions were within distal rectum and had characteristic histological pattern. All children were treated with conventional treatment like dietary fibers and laxatives along with toilet training. About 75% children attained remission and 25% had relapse but responded with corticosteroid enema. None required surgery. They have concluded that conventional treatments itself induce and maintain remission in most of SRUS patients if treatment is instituted at the earliest.

[3.] Bhattarai D, Vignesh P, Kaur A, Kumari P, V Menon J, Geethanjali G, Rawat A. Epstein-Barr virus-associated lymphocytic cholangitis in a child with X-linked lymphoproliferative syndrome. Scand J Immunol. 2021 Feb; 93(2):e12975. doi: 10.1111/sji.12975. Epub 2020 Sep 23.

In this letter to the editor, authors have reported on a 4-year-old boy who presented with one-month history of high-grade intermittent fever and diffuse dull-aching abdominal pain.Evaluation has revealed pallor, generalized lymphadenopathy,progressively increasing liver size (span: 15 cm) and conjugated hyperbilirubinemia.He was subsequently diagnosed to be affected with X-linked lymphoproliferative disease (XLP) and the presenting symptoms due to EBV-related lymphocytic cholangitis (LC) which was managed medically. This case emphasizes that LC must be suspected in children with persistent fever of unknown origin and raised liver enzymes,and XLP must be ruled out in cases of EBV-associated LC.

[4.] Swaminathan A, Sathiyasekaran M, Padankatti S, Padankatti RB, Arulprakash S, Raj R. A rare cause of rectovaginal fistula in early infancy: It is in the genes! J Indian Assoc Pediatr Surg 2020; DOI: 10.4103/jiaps.JIAPS_217_20. Accepted for publication 2020 September 5

Authors have reported the case of 2 month old infant girl with an acquired RVF with extraintestinal features due to rare IL10RB mutation who underwent hematopoietic stem cell transplantation (HSCT) to highlight the importance of thinking beyond the local anatomy and looking into the genetic domain and role HSCT in the management of Infantileonset IBD (IOIBD).

Compiled by **Dr. Prasanth.K.S**