7th International Congress of Pediatric Gastroenterology & Hepatology

27th April 2024

Venue: Sajid Maqbool Auditorium,
New Building 3rd Floor,
University of Child Health Sciences,
The Children's Hospital, Lahore.

ABSTRACT BOOK

CONFERENCE SECRETARIAT:
Department of Pediatric Gastroenterology,
Hepatology & Nutrition
University of Child Health Sciences,
The Children's Hospital, Lahore

FOR REGISTRATION & INFORMATION
Dr. Zafar Fayaz +92 333 1603818
Dr. M. Nadeem Anjum +92 334 7085121
7thpediatricgestro@gmail.com

Event Organizer
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Message from Vice Chancellor

Dear colleagues and participants,

It gives me immense pleasure to extend a warm welcome to the delegates of the 7th International Congress on Pediatric Gastroenterology at the University of Child Health Sciences, Lahore. As the Vice Chancellor of the University of Child Health Sciences, Lahore, it is heartening to see the department of gastroenterology & hepatology at the forefront of such academic activities.

The University of Child Health Sciences (UCHS), is the first of its kind with the vision of being the world leader in child health. This university was established with the back ground that Pakistan has one of the highest population growth rate in the world (>2%) and children aged < 18year constitute 47.8% of the total population.

Pediatric gastroenterology& hepatology like any other system of the body plays a crucial role in ensuring the health and well-being of our children, addressing a wide range of gastrointestinal diseases and liver disorders. I'm sure like the previous successful conferences from the department of Pediatric Gastroenterology, this conference will also provide a unique opportunity for experts, researchers, and practitioners across the country not only for exchange of knowledge but also to explore the latest advancements in this rapidly evolving field.

The organizers have put their hard work, and dedication to make this event a success, and I am sure the scientific committee's selection of topic is both informative and enlightening. I encourage all participants to actively engage in the discussions, share their expertise, and collaborate on innovative approaches to pediatric gastroenterology& hepatology.

By working together and sharing our collective wisdom, we can improve outcome of children facing gastrointestinal and liver disorders and pave the way for a healthier future generation.

I welcome you to the university and hope it will be a rewarding experience.

Thank you,

Warm Regards

Prof. Masood Sadiq

MRCP (UK), FCPS, FRCP (Ed), FRCPCH, Vice Chancellor UCHS & The Children's Hospital, Lahore

Message from Patron

Dear distinguished speakers and participants,

It is with great pleasure that I extend a warm welcome to all of you in the vibrant city of Lahore—a city steeped in heritage, literature, and archaeological marvels.

Our esteemed institution, the University of Child Health Sciences (UCHS) & Children's Hospital, Lahore stands as a beacon of excellence, consistently at the forefront of training, research, child health, and policy development.

Pediatric Gastroenterology is now a well-established subspecialty worldwide, the department of pediatric GI at Children's Hospital in 1998 and since its inception it has been catering the needs of the entire country. In addition the department of Pediatric Gastroenterology has also unique role at UCHS, being the only Rare Disease Center in the country providing not only free diagnostic as well as treatment facilities to rare genetic disorders.

The department has state-of-the-art endoscopic services, expertly conducted by seasoned professionals; ensure the highest quality of care. I also extend my heartfelt congratulations to the Gastroenterology Unit and the dedicated organizing team for hosting the 7th International Congress of Pediatric Gastroenterology from the platform of the Children's Hospital & UCHS, Lahore and I wish them all the success.

With warm regards,

Prof. Huma Arshad Cheema

MRCP (UK), DPGN (London)
Prof. Emeritus Pediatric Gastroenterology-Hepatology and Nutrition
The Children's Hospital & the University of Child Health Sciences, Lahore Pakistan

Message from
Medical Director

It gives me great pleasure to welcome all the participants to the 7th International Gastroenterology & Hepatology congress. The credit goes to organizing team and Gastroenterology department hosting this unique event featuring a galaxy of national and international speakers.

University of Child health Sciences and the Children's Hospital, Lahore are pioneers for taking the lead in Child health by establishing a center of excellence through research, creativity, quality education and advocacy.

I wish the organizers a great success and the participants a very interactive and knowledge sharing experience.

Prof. Tipu Sultan

Professor of Pediatric Neurology
Medical Director
The Children's Hospital & UCHS, Lahore

Message From

Chair Organizing Committee

Welcome to the 7th internal congress of pediatric gastroenterology, an event dedicated to fostering collaboration, innovation, and advancement in Pediatric GI and liver diseases. As the Chairman of the Organizing Committee, it gives me great pleasure to extend a warm welcome to each and every one of you.

This symposium serves as a platform for sharing knowledge, exchanging ideas, and building networks among experts, researchers, and practitioners in the field. Our goal is to explore the latest developments, address key challenges, and identify opportunities for collaboration that will shape the future of Pediatric Gastroenterology and Hepatology.

Throughout the symposium, you will have the opportunity to engage in stimulating panel discussions, attend informative sessions, and connect with colleagues who share your passion and dedication. I encourage you to actively participate, ask questions, and contribute your insights to enrich the dialogue and enhance our collective understanding.

Thank you for your participation and commitment to advancing knowledge and excellence in GI and liver diseases.

Warm regards,

Prof. Anjum Saeed

Professor of Pediatric Gastroenterology & Hepatology
The Children's Hospital & UCHS, Lahore
Chairman, Organizing Committee

INTERNATIONAL FACULTY

PROF. NEELAM MOHAN
(INDIA)

PROF. LEE WAY SEAH
(MALAYSIA)

PROF. DANIEL KOTLARZ
(GERMANY)

NATIONAL FACULTY

PROF. HUMA ARSHAD CHEEMA

PROF. MUNIR AKMAL LODHI

PROF. MUNIR IQBAL MALIK

DR. FAISAL HANIF

SCIENTIFIC PROGRAM

7th International Congress of Pediatric Gastroenterology & Hepatology

Saturday 27th April, 2024

Moderator: Dr. Syeda Sara Batool

Chairpersons: Prof. Sajid Maqbool, Prof Ahsan Waheed Rathore, Gen. Salman Ali, Prof. Iqbal Memon, Prof. Waqar Rabbani, Prof. Haroon Hamid

Time	Speaker	Title Of Talk
09:00-09:20	Prof. Lee Way Saeh	Recurrent abdominal pain in children
09:25-09:45	**Inauguration:** Recitation from Holy Quran National anthem Address by Chairperson Organizing Committee Address by Prof. Huma Arshad Cheema (Patron) Address by Vice Chancellor, UCHS Address by Guest of Honor Address by Chief Guest	
09:45-10:05	Prof. Huma Arshad Cheema	Approach to chronic liver disease in children
10:05-10:35	**Panel Discussion:** Dr. Muhammad Nadeem Anjum 1- Prof. Tahir Masood 2- Prof. Masood Sadiq 3- Prof. Huma Arshad Cheema 4- Prof. Lee Way Saeh 5- Dr. Kamran Sadiq	Huge burden of genetic diseases in Pakistan Unmet needs in access to diagnosis and treatment Public private partnership is it a solution?

Tea Break-15 minutes

2nd Session-Gastroenterology & Hepatology

Moderator: Dr. Nagina Shehzadi

Chairpersons: Prof. Tahir Masood, Prof. Qazi Yaqub, Prof. Muhammad Ali Khan Prof. Tariq Bhatti, Prof. Muhammad Shahid, Prof. Muhammad Nasir Rana

Time	Speaker	Title Of Talk
10:50-11:10	Prof. Danial Kotlarz	Inflammatory bowel disease with special emphasis on very early onset IBD
11:15-11:35	Prof. Munir Akmal Lodhi	Evolving pattern of Hepatitis C in Children and it's management
11:40-12:10	**Panel Discussion:** Dr. Ghazi Khosa 1- Prof. Tahir Masood 2- Prof. Qazi Yaqub 3- Prof. Muhammad Ali Khan 4- Prof. TayyabaKhawar Butt 5- Prof Yasin Alvi 6- Prof. Junaid Rashid	Role of probiotics in Diarrhoea and other GI disorders

7th International Congress of Pediatric Gastroenterology & Hepatology

3rd Session-Free papers

Moderator: Dr. Muhammad Arshad Alvi

Chairpersons: Prof. Javaid Bukhari, Prof. Khalid Masood, Prof. Azhar Abbas Shah
Prof. Muhammad Idris Mazhar, Prof. Khwaja Muhammad Arshad

Time	Speaker	Title Of Talk
12:00-01:00	Dr. Hazrat Bilal	Neonatal Cholestasis: The Changing Etiological Spectrum in Pakistani Children
	Dr. Hooria Rehman	Burden of foreign body ingestion in children and outcome
	Dr. Nagina Shehzadi	Clinical spectrum of Wilsons Disease in Children at a tertiary care setting of Punjab, Pakistan: Single Center Experience
	Dr. Almas Hashmi	The efficacy and safety of the Sofosbuvir and Velpatasvir combination in the pediatric Population with Hepatitis C
	Dr. Tehreem Fatima	Clinical and Genetic Description of Hereditary Chronic Pancreatitis in Pakistani Children
	Dr. Irum Aslam	Atypical presentation of Hepatitis A in Children: A single center experience from a leading tertiary childcare facility of South Punjab, Pakistan
01:00-01:30		Poster walk & Lunch

4th Session-Liver Transplant

Moderator: Dr. Almas Hashmi

Chairpersons: Prof. Iqbal Memon, Prof. Nabila Talat, Col. Shamama Hassan
Col. Farooq Ikram, Dr Kamran Sadiq

Time	Speaker	Title Of Talk
01:30-01:50	Prof. Neelam Mohan	Acute liver failure
01:50-02:10	Prof. Munir Malik	Challenges and difficulties in Pediatric Liver Transplant in Pakistan and it's way forward
02:10-02:30	Dr. Faisal Hanif	Pediatric Liver transplant, a surgeon's perspective and review
02:30-03:00	**Panel Discussion:** Dr. Zafar Fayyaz 1- Prof. Iqbal Memon 2- Prof. Nabila Talat 3- Prof. Iqtadar Seerat 4- Col Shamama Hassan 5- Col. Farooq Ikram 6- Dr. Bilal Mirza	Improving outcome of biliary atresia in Pakistan?

Closing Ceremony

Title: Recurrent Abdominal Pain in Children

Prof. Lee Way Seah

M. Kandiah Faculty of Medicine and Health Sciences,
University Tunku Abdul Rahman, Kajang, Selangor, Malaysia

Abstract:

Recurrent abdominal pain (RAP) in children is a common occurrence in children. An underlying organic cause is only identified in 5% to 10% of cases while the remaining is often considered as functional (nonorganic) abdominal pain. Functional abdominal pain disorders are currently referred to as
disorders of gut–brain interaction (DGBI). A few subtypes, as defined by the Rome IV diagnostic criteria, have been identified. Childhood functional abdominal pain disorders are common with a prevalence of 3–16% depending on region, age, and gender. Currently, a better understanding of the underlying pathophysiologic mechanism is emerging, which includes intestinal components (inflammation,
motility, and the microbiota), central factors (psychological factors, sensitization of certain brain regions) as well as extrinsic factors (gastrointestinal infections).

The main focus of diagnosis is to exclude an organic cause. It is necessary to avoid unnecessary, invasive diagnostic procedures. Currently, the available pharmacological interventions are limited in children. Management is focused on combined approaches.

Title: Approach to chronic liver disease in children

Prof. Huma Arshad Cheema

Professor Emeritus, University of Child Health Sciences & The Children's Hospital, Lahore Chairperson Pakistan Pediatric Association, GI & Liver group

Abstract:

Chronic liver disease in children presents unique challenges in diagnosis, management, and long-term care. This abstract outlines an approach to addressing these complex conditions in children where one need to emphasise the importance of early detection through meticulous clinical evaluation and appropriate laboratory investigations, the approach advocates for a multidisciplinary team involving pediatric hepatologists, gastroenterologists and some situation nutritionists. Diagnostic modalities, including interpretation of liver functions, biochemical tests, imaging studies and liver biopsy, in addition to genetic testing play pivotal roles in establishing etiology and assessing disease severity. Treatment strategies encompass pharmacotherapy, nutritional support, and, in select cases, liver transplantation. Additionally, the abstract highlights the significance of ongoing monitoring for disease progression, complications, and psychosocial support for patients and their families. By integrating these components, the approach aims to optimize outcomes and enhance the quality of life for children with chronic liver disease.

Title: Inflammatory bowel Disease with Special Emphasis on Very Early Onset IBD

Prof. Daniel Kotlarz

Abstract:

Children with very early onset inflammatory bowel disease (VEO-IBD) often show refractory and life-threatening conditions. Our previous discoveries of IL-10R deficiencies have shifted paradigms by demonstrating the relevance of genomic profiling for the treatment of VEO-IBD patients. A follow-up genetic screen on a large international cohort of patients with VEO-IBD (n >1.400) has revealed known and novel monogenic defects in approximately 20% of affected children by employing whole exome sequencing. However, the majority of patients still lacks definitive diagnosis and the disease mechanisms remain largely elusive, even in patient with known genetic defects. Therefore, there is an unmet need to understand molecular pathomechanisms as the basis for the development of innovative diagnostics and therapies. A systems medicine approach employing multi-omics data generated from patient-derived intestinal biopsies and blood may facilitate (i) discovery of novel genetic causes, (ii) decoding of inflammatory networks as well as (iii) identification of personalized therapeutic targets.

Title: Evolving Pattern of Hepatitis C in Children and its Management

Prof. Munir Akmal Lodhi

Professor & Head Department of Paediatrics and Paeds Gastroenterology Hepatology and Nutrition Department Fauji Foundation Hospital/Foundation University Medical College, Islamabad

Abstract:

Hepatitis C is an RNA virus with six Genotypes – Type 3 most prevalent in Pakistan. Global burden is 170 million. High Risk Groups include blood transfusions, thalassemia, malignancies, IV drug abuse etc. Important pre-treatment lab work includes LFTs, INR, HCV PCR, HCV Genotype (Not mandatory with new pangenotype regimens) and Ultrasound abdomen/ fibroscan. Liver biopsy is NOT required for any therapeutic decision making for Paediatric HCV infection. All children elder than 3 years with positive HCV PCR can be treated irrespective of genotype, viral load and fibrosis/cirrhosis. Current recommendation is interferon free, Ribavirin free DAA based regimens. Sofosbuvir was the first DAA, NS5B RNA dependent RNA polymerase inhibitor. It was approved by FDA in December 2013 and Drug Regulatory Authority of Pakistan in November 2014. HCV treatment revolutionized since the introduction of Sofosbuvir.

Title: Acute Liver Failure in Children

Prof. Neelam Mohan

Senior Director & HOD- Department of Pediatric Gastroenterology, Hepatology & Liver Transplantation,
Medanta, The Medicity, Gurugram (Haryana) – India -122001
President – Commonwealth Association of Pediatric Gastroenterology and Nutrition (CAPGAN) B.C. Roy National Award from President of India

Abstract:

Pediatric acute liver failure (PALF) is a rapidly progressive clinical syndrome characterized by sudden acute deterioration of liver function.

PALF is a medical emergency and carries a significant mortality. The high mortality in PALF is attributable to multiorgan dysfunction, sepsis, cerebral edema, coagulopathy and bleeds. Patients with acute liver failure need intensive clinical support, often provided by the collaborative efforts of hepatologist, intensivist. Orthotropic liver transplantation (OLT) is the definitive therapeutic modality in the management of ALF if no response to medical therapy. Newer liver support devices like molecular adsorbent recirculating system (MARS) and extracorporeal liver assist device (ELAD) help as bridge to liver transplantation.

Definition of ALF or FHF

PALFSG study entry criteria—all three components required

- Acute onset of liver disease without evidence of chronic liver disease.
- Biochemical evidence of severe liver injury Coagulopathy not corrected by vitamin K
- Prothrombin time (PT) 15 s or INR 1.5 with evidence of hepatic encephalopathy or
- PT 20 s or INR >2 with or without encephalopathy

Etiology

Viral hepatitis and metabolic liver disease are the leading causes of acute liver failure (ALF) in India and Pakistan.

Infection : Hepatitis A is the commonest infective cause of ALF followed by hepatitis E and dengue could cause ALF.

Occasionally other viral infections like Adenovirus, Epstein-Barr virus, Cytomegalovirus, Echovirus, varicella, Measles, Lassa, Ebola, Marburg virus, Dengue, Toga virus can lead to ALF.

Others : Autoimmune hepatitis and Wilson disease.

Management Algorithm

Early referral-

- ✓ Timely trx`ansfer to a higher center, preferably with LT facilities.
- ✓ High likelihood of cerebral oedema in Grade III or IV encephalopathy– Intubate and Secure airway before transport.
- ✓ Communicate with centre patient is being referred to and follow safe transport guidelines

Assess need of ICU Admission (> Grade 2 HE)-

- Manage in a ICU/HDU setting as pre requirement

Look for criteria (centre specific) for Liver Transplantation (LTx) listing

- Etiology specific/non specific
- King's College criteria
- Peds HAV Model
- Liver Injury Unit score

If patient meets criteria for LTx

Subsequent Management

Clinical assessment (variable frequency)

- Features of Raised ICT 2 hourly

Laboratory testing (Depends on patient's clinical status)

- Blood glucose 2-4 hourly
- LFT daily
- KFT daily (frequently if renal dysfunction)

Early Enteral Nutrition

Look for Complications and Manage

Specific Management of Complications

Hepatic encephalopathy (HE), Cerebral edema and Raised intracranial tension (ICT)

- Elevate head of the bed (30 degrees)
- **Minimal stimulation** and handling
- Fluid Restriction (90 % Maintenance unless dehydrated - Titrate as per CVP or IVC filling on USG)
- **Osmotherapy- Mannitol** (For episodes of elevated ICP, 2-3 doses provided Sr Osmolality < 320- No prophylactic role) or 3% normal saline (Goal Na 145-155 meq/L)
- **Control of hypoglycemia, hypoxemia, fever**
- Optimise Blood Pressure- Maintain cerebral perfusion
- Avoid benzodiazepines/other sedatives
- **Elective intubation** (> Stage 3 HE)
- **Drug induced coma** (Propofol) -Decrease cerebral blood flow
- **Hyperventilation** (If impending herniation- Goal pCO2 30-35 mmHg)
- Barbiturates – Thiopentone for refractory ICP
- Non-invasive ICP monitoring (> Stage 3HE)

Prophylaxis treatment for

- **Infections and esispis,**
- **Dyselectrolytemia**
- **Coagulopathy :** Avoid FFP unless: Active bleed, INR >7 (relative indication). Avoid over-transfusion
- **Hypoglycemia**

If Further Deterioration

Consider:

- **Initiate CRRT and/or High Volume Therapeutic Plasma Exchange (HV-TPE)**
  - Consider early initiation (as per available resources) for potential spontaneous recovery or as a bridge to LT
- **N-acetylcysteine-** Role in Non-PCM ALF is controversial though it is universally used
- **If patient meets criteria for liver transplant process for urgent basis**

Liver Transplantation for Pediatric Acute Liver Failure

With the advent and advancement of pediatric liver transplantation (LT), the survival rates for children with PALF have dramatically increased. Outcome of LT in PALF in living related liver transplant setting like ours is high >92% while it may be inferior in West where waiting for cadaveric organ may detonate the patient. In our experience of 500 pediatric liver transplantations, ALF/Acute on chronic liver failures constituted 26.5%.

King's College Hospital Criteria

All other causes of Acute Liver Failure	Paracetamol Induced Acute Liver Failure
Any grade HE or INR> 6.5	Arterial PH < 7.3 (after adequate fluid resuscitation)
OR Three of the following variables	**OR Combination of the following**
INR > 2.3	INR > 6.5
Serum bilirubin >17.5 mg/dl	Serum creatinine >3.4 mg/dl
AGE < 10 years or >40 years	Grade III–IV encephalopathy
Unfavorable Cause (DILI, Indeterminate etiology)	Lactate > 3

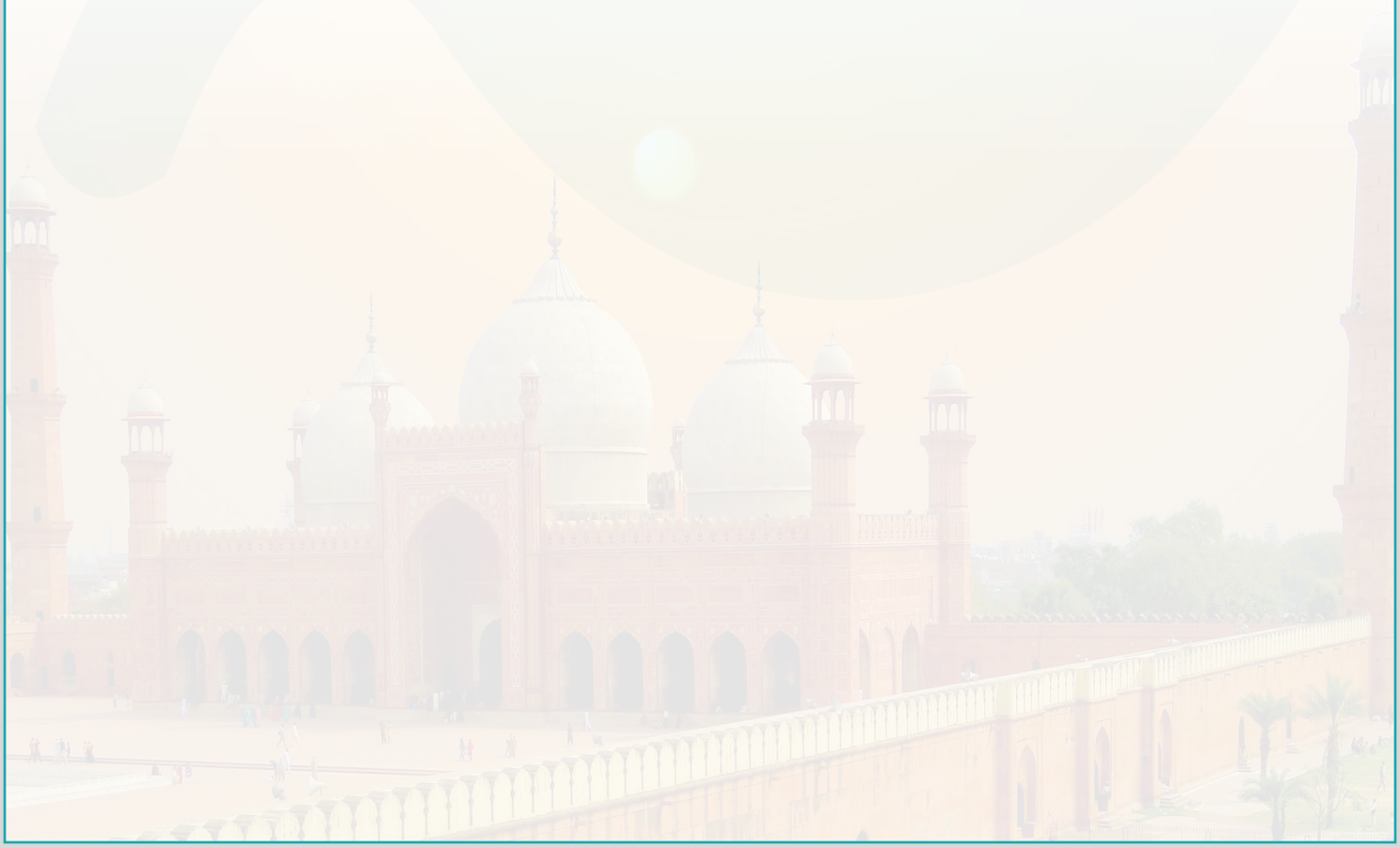
Clinchy's criteria for viral hepatitis in factor V with <20%.

UK organ allocation is based on INR >4

Contraindications for Liver Transplant

Following are considered as general contraindications for LT in PALF setting.

- Irreversible brain damage
- Severe uncorrectable multiorgan dysfunction
- Invasive (active) fungal infection
- Multisystemic disease like hemophagocytic lymphohistiocytosis (HLH) mitochondrial cytopathies



Title: Challenges and Difficulties of Pediatric Liver Transplant and it's Way Forward

Prof. Munir Malik

Consultant in Pediatrics and Gastroenterology
Professor of Pediatrics Shifa College of Medicine
ShifaTameer-e-Millat University Islamabad, Pakistan

Abstract:

1. Brief history of pediatric liver transplant in Pakistan

2. Challenges for liver transplant in Pakistan

- Awareness and diagnosis of the disease
- Financial restraints
- PICU challenges
- Nutritional support prior to transplant
- Infection control
- Subspecialty support
- Nursing care

3. Way Forward

- Establishment of pediatric hepatology fellowship including transplant Hepatology
- Education for timely referral
- Hepatocyte transplant
- Education in society to prevent inherited disorders and preventable diseases specially Hepatitis A

Title: Pediatric Liver Transplant, a Surgeon's Perspective and Review

Dr. Faisal Hanif

Consultant Hepatobiliary Surgeon
Bahria International Hospital, Raiwind Road, Lahore

Abstract:

.

COMING SOON!

Free Papers

Title: Neonatal Cholestasis: The Changing Etiological Spectrum in Pakistani Children

Hazrat Bilal

Government Lady Reading
Hospital of Khyber Pakhtunkhwa

Objectives:

To determine the frequency of clinical presentation and laboratory profile in the diagnosis of the etiological spectrum of neonatal cholestasis.

Material and methods:

In this prospective cross-sectional study, we recruited children who presented with jaundice and direct hyperbilirubinemia with onset in the first three months of life. The study was conducted between April 2019 to March 2021 (24 months) at the Government Lady Reading Hospital of Khyber Pakhtunkhwa province in Pakistan. The diagnosis was based on history and clinical findings that included jaundice, stool color, itching, abdominal distention, and deranged liver function tests and confirmed on liver biopsy and specific diagnostic tests. Data was recorded and analyzed using SPSS version 20 (IBM Corp., Armonk, NY).

Results:

A total of 90 children were included in the study, out of which 65.6% were male. The average age was recorded as 118.01 days + 118.1 SD. Jaundice, dark urine, and hepatomegaly were found in 85.6% of children while ophthalmologic disorder, congenital heart disease, and itching were the least common symptoms. Laboratory findings of the cholestasis patients showed high bilirubin (mean: 8.88 mg/dL), alanine transaminase (ALT) (mean: 177.48 IU/mL), aspartate transaminase (AST) (mean: 187.11 IU/mL), gamma-glutamyltranspeptidase (GGT) (mean: 187.66 IU/mL) and prolonged international normalized ratio (INR) (mean: 2.20) in majority of patients. The genetic and metabolic disorder was the leading cause found in the majority of children, which was 43.8%.

Conclusion:

The common causes of neonatal cholestasis in this study are galactosemia, idiopathic hepatitis, and biliary atresia. The common presentation includes jaundice, hepatomegaly, direct hyperbilirubinemia, raised liver enzymes, and INR.

Free Papers

Title: Burden of foreign body ingestion in children and outcome

Hooria Rehman, Anjum Saeed Huma Arshad Cheema

Department of Pediatric Gastroenterology, Hepatology & Nutrition, The Children's Hospital & University of Child Health Sciences, Lahore, Pakistan

Background:

Foreign body ingestion is a common presentation in childrenpediatric emergency department. This study highlights the clinical presentation of various foreign bodies, their complications, diagnosis and management.

Method:

A cross sectional data analysis of patients with foreign body ingestion presented between July 2015 to June 2023 at University of child health sciences, Lahore, Pakistan was conducted. Patients up to 16 years of age with foreign body ingestion were included and coded as RED, Yellow and Green in terms of management. Descriptive statistics, parametric or non-parametric tests, and linear regression analysis were performed.

Result:

In total, 881 patients were enrolled; the mean age was 4.6 years (SD 3.07; range 0.11 to 16 years), the male to female ratio was 1.4:1. On an average, 110 cases/year were managed and maximum number of patients were admitted in 2019. Button/coin battery (329, 37.3%) was the most common ingested foreign body followed by coin ingestion. Complications were most frequently observed with button battery/coin battery and magnets. Patients admitted with Red-code were 475 (53.9%), Yellow-code were 233 (26.4%) and Green-code were 173 (19.6%). Flexible endoscopy was done in 789(89.5%) patients and successful retrieval was done in 747 (84.7%) patients.

Conclusion:

High rate of foreign body ingestion specially button battery/ coin battery ingestion and associated complications were observed. Following the guidelines for diagnosis and management, serious complications can be reduced. Further public awareness and protective measures at government level are needed to stop this trend.

Free Papers

Title: Clinical spectrum of Wilsons Disease in Children at a tertiary care setting of Punjab, Pakistan: Single Center Experience

Nagina Shehzadi, Kalsoom, Sohail

Department of Pediatric Gastroenterology, Hepatology & Nutrition
The Children's Hospital, Faisalabad

Objective:

To document the clinical spectrum of Wilsons Disease (WD) at a tertiary setting of Punjab, Pakistan.

Study Design: Cross-sectional study.

Place and Duration: The department of pediatric gastroenterology, Children Hospital, Faisalabad, Pakistan, from July 2022 to June 2023.

Material and methods:

A total of 60 children of both genders aged below 18 years, and presenting with WD were analyzed. Physical and clinical examinations were performed and medical history was taken in all WD cases. Demographic and clinical characteristics were noted, and relevant laboratory investigations were done.

Results:

In a total of 60 children with WD, 42 (70.0%) were boys. The mean age was 10.25±3.10 year ranging between 5 to 16 years while 47 (78.3%) children were aged between 5-12 years. Residential status of 35 (58.3%) children was rural. Family history of WD was present in 15 (25.0%) children whereas consanguinity of marriage among parents was noted in 27 (45.0%) cases. The most frequent signs and symptoms were Jaundice, hepatomegaly, ascites, and coagulopathy, noted in 53 (88.3%), 41 (68.3%), 36 (60.0%), and 24 (45.0%) children respectively. Kaiser Fischer ring was noted in 16 (26.7%) children. The mean Wilsons index score was 9.77±2.98 while 31 (51.7%) children had scores ≥ 10. The mean ceruloplasmin and 24-hours urinary copper levels were 7.03±7.51 mg/dl and 746.03±451.06 µg.

Conclusion:

Hepatic manifestations are the commonest among children with WD. The most frequent signs and symptoms among children were Jaundice, hepatomegaly, and ascites. There is a need to identify factors that contribute to early diagnosis and prompt treatment, thereby preventing severe brain damage and liver failures in affected patients.

Free Papers

Title: The efficacy and safety of the Sofosbuvir and Velpatasvir combination in the pediatric population with Hepatitis C

Muhammad Almas Hashmi, Munir Akmal Lodhi Umar Saeed, Nagina Shehzadi, Anjum Saeed Huma Arshad Cheema

Department of Pediatric Medicine, Foundation University Rawalpindi
Department of Pediatric Gastroenterology, Hepatology & Nutrition
The Children's Hospital, Faisalabad
Department of Pediatric Gastroenterology, Hepatology & Nutrition
The Children's Hospital & University of Child Health Sciences, Lahore, Pakistan

Background:

Hepatitis C represents a formidable global public health challenge. This study aims to rigorously assess the efficacy and safety of the Sofosbuvir and Velpatasvir combination in the pediatric population.

Methods:

Consecutive non-probability sampling identified Hepatitis C PCR positive pediatric patients from January 2021 to December 2022. Enrolled patients received a 12-week fixed combination of Sofosbuvir and Velpatasvir (400+100 mg) once daily. A 24-week follow-up period was conducted. Results: A total of 36 patients, with a mean age of 10.7±4.0 years, completed the study. Male predominance was observed (63.9%), with a weight z-score of -1.04±1.81. Genotype 3 was the most prevalent (91.66%), and horizontal transmission occurred in the majority (86.11%). Thalassemia (50%) and Acute Lymphoblastic (8.33%) were common underlying conditions. Virological clearance was achieved in all patients at 4 weeks of treatment, persisting at 12 weeks post-treatment. Significant improvements in ALT (P value <0.001) and bilirubin (P value <0.001) were noted at 12 weeks post-treatment. Self-limiting adverse effects were minimal.

Conclusion:

The Sofosbuvir and Velpatasvir combination demonstrated exceptional efficacy and safety in treating pediatric Hepatitis C. These findings contribute substantively to refining pediatric Hepatitis C management strategies.

Free Papers

Title: Clinical and Genetic Description of Hereditary Chronic Pancreatitis in Pakistani Children

Tehreem Fatima, Zafar Fayyaz
Muhammad Nadeem Anjum
Muhammad Arshad Alvi, Syeda Sara Batool
Anjum Saeed, Huma Arshad Cheema

Department of Pediatric Gastroenterology, Hepatology & Nutrition,
The Children's Hospital & University of Child Health Sciences, Lahore, Pakistan

Background:

Hereditary chronic pancreatitis (HCP) is a rare, genetic disorder characterized by epigastric pain and often with more serious complications in children. The incidence of hereditary pancreatitis is 0.3 to 0.5/100,000 cases. The purpose of this study was to identify the spectrum and frequency of pathogenic variants as well as the clinical and genetic insight of HCP in Pakistani children.

Methods:

The DNA of affected probands of 44 unrelated Pakistani families, having HCP affected children, were subjected to massive parallel sequencing for candidate reported genes (SPINK1, PRSS1, CFTR, CPA1, CTRC, CBS, AGL, PHKB and LPL). Data was analyzed using different bioinformatics tools for the variants and Insilico analysis. All the identified variants were validated by direct sequencing of the targeted exons in the probands and their parents.

Results:

We recruited children presenting with chronic pancreatitis and 44 unrelated cohorts with one or two children as probands from each cohort who met the selection criteria for the recruitment. Variants of the genes SPINK1, PRSS1 and CFTR have been more frequently identified than the other genes. Nine known mutations in SPINK1, PRSS1, CFTR, CTRC, CBS, and AGL genes and ten novel variants in LPL, CFTR, CTR and PHKB genes were identified. The identified variants were found in heterozygous, compound heterozygous and trans heterozygous forms, with rare allele frequency in normal population. The novel variants were [c.378C>T(p.Lys126Asn) and c.719G>A(p.Arg240Gln) in CTRC, c.586-3C>A and c.763A>G(p.Arg255Gly) in CPA1, c.1160_1161insT(p.Lys387Asnfs*26), c.784C>T(p.Gln262*), c.1139+1G>A, c.175G>A(p.Gly59Arg) in LPL, c.388C>G(p.leu130val) in CFTR and c.2327G>A(p.Arg776His in PHKB)]. The phenotypic characteristics were variable and correlating with the relevant variant.

Conclusion:

The genetic composition plays a significant role in the predisposition of hereditary chronic pancreatitis. The clinical presentation varies with genetic determinant involved. This condition advocates the establishment of an expanded genetic screening program for HCP within Pakistan. Early genetic, clinical diagnosis and follow up is critical for proper disease management and personalized treatment. This information would help in building up a diagnostic algorithm for our population that can be used for genetic screening services in affected cohorts.

Free Papers

Title: Atypical presentation of Hepatitis A in Children: A single center experience from a leading tertiary childcare facility of South Punjab, Pakistan

Irum Aslam, Ghazi Khan Khosa

Department of Pediatric Gastroenterology, Hepatology, and Nutrition of the Children's Hospital and Institute of Children Health, Multan, Pakistan

Objective:

To determine the prevalence of atypical presentation of HAV infection in children visiting tertiary childcare facility of South Punjab, Pakistan.

Material and methods:

Children of either gender, aged between 1-18 years, visiting outpatients or emergency department, and diagnosed with HAV infection were analyzed. HAV infection was diagnosed considering clinical findings, along with elevated alanine aminotransferase (ALT), international normalized ratio (INR), total bilirubin, and a positive serum hepatitis A virus immunoglobulin M antibody (anti-HAV IgM). Atypical manifestations of HAV were documented.

Results:

In a total of 246 children, 144 (58.5%) were boys. The mean age was 6.4±4.3 years. Atypical presentation of HAV infection were noted in 65 (26.4%) children. The most frequent atypical presentations were ascites, pleural effusion, thrombocytopenia, and cholestasis, noted in 21 (32.3%), 16 (24.6%), 13 (20.0%), and 9 (13.8%) children. Relatively younger age was found to have significant association with atypical presentation of HAV infection as 64.6% children with atypical presentation were aged ≤5 years versus 47.5% with typical presentation ($p=0.0370$). When compared to children with typical manifestations of HAV infection, children with atypical manifestations had significantly less serum bilirubin ($p=0.0021$), higher INR ($p<0.0001$), lower hemoglobin ($p<0.0001$), and raised albumin ($p<0.0001$).

Conclusion:

Atypical manifestations of HAV are common among children while ascites, pleural effusion, thrombocytopenia, and cholestasis remain the most frequent occurrences. Relatively younger age was significantly associated with the existence of atypical manifestations. Distinct laboratory parameters were evident among children with atypical manifestations of HAV.