42 WB STATE PEDICON

INDIAN ACADEMY OF PEDIATRICS

West Bengal Academy of Pediatrics

eSouvenir

cum

Abstract book

Venue - Suresh Neotia Hall (cii), Salt Lake City Center , Kolkata

Preconference CME on 8th Dec 23 • Main conference on 9th,10th Dec 23

In Memoriam

DR KL MUKHERJEE
DR MADAN MOHAN DAS
DR SP KHATUA
DR ASIS CHAKRABARTI
DR DEBABRATA CHATTERJEE
DR PRANAB KR BHOWMIK
DR NABENDU CHAUDHURI
DR DWIJA DAS SOM
DR NEILLE SARKAR
DR KABERI BASU
DR PRABAL C NIYOGI
DR SUBRATA RUDRA
DR SUBHALAKSHMI RAY CHAUDHURI
DR MAMATA SARKAR
DR D P SARKHEL
DR SN BASU
DR SATYA RANJAN SANTRA
DR SK MUKHERJEE
DR DHIRENDRANATH BHATTACHARJEE
DR BISWAJIT BANDYOPADHYAY
DR ARDHENDU MAZUMDAR
DR CHHANDA MANDAL
DR SANKAR LAL SARKAR
DR BK CHAKRABORTY
DR SR BANERJEE
DR AJIT KUMAR CHAKRABARTY
DR FAKIR CHARAN PATRA
DR MOMOTA CHOWDHURY
DR TAPAS RANJAN MAITI
DR SUSIL CHANDRA PAL
DR BASUDEB CHATTERJEE
DR SK MITRA
DR PRABHAT KUMAR MAJI
DR AJOY MITRA
DR SUKHENDU MONDAL
DR DILIP MAHALANABIS
DR BIKRAM GHOSH

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Executive Board and Organising Team
42nd WB State PEDICON 2023

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42nd WB State PEDICONCII, Kolkata

79,10 December 2023

Scientific Program

"Theme - Embrace the New Change in patient care "

Day 1 - 09.12.23 HALL -A – Dr. Dilip Mahalanabis Hall

Time	Speciality		Chairperson
9 – 9.40 a.m.	ORAL Paper	Judges – Prof. Nepal Mahapatra, Dr. Jaydeep Das, Dr.KalyanbrataMondal ,Dr. Sumita Pal,	
9.40 – 11.10 a.m.	Gastroenterology	Lecture – Challenges in differentiating Wilson Disease and Autoimmune Hepatitis – 20 minutes Dr. Gautam Ray Short Talk – 7 min + 3 min Fatty Liver Disease – The rising epidemic Dr. Pranab Kumar Dey + Moderator Prof. Subrata Chakraborty Gluten Hypersensitivity - Is it only celiac ?7 min + 3 min Dr.Tryambak Samanta + Dr. Sujay Chaudhuri Panel discussion – 40 minutes Chronic Diarrhoea – Diagnostic challenges Moderator – Dr.Subhamay Das Panelist –Dr. Bhaswati Achariya, Dr. Nandini Sinha Roy , Dr. Sneha Dasgupta, , Dr.Meghdeep Mukhopadhyay Lead Discussant – Dr. Pavitra Chakraborty	Dr. Prasenjit Banerjee Dr Sutapa Ganguly
11. 10 – 11.50 a.m.	Dr. Tapan Ghosh Memorial Oration	Changing Paradigms of Neurocritical Care - Prof. ARUN BANSAL	Dr. Samir Ranjan Das Prof. Ashok Dutta
11.50 – 13.20 p.m.	Cardiology	Lecture - 20 minutes Cardiac Imaging beyond echocardiography - where do we stand and what to expect in future? - Dr.Mahua Roy Short Talk – 7min + 3 Min Recent advances in heart failure management Malabika Maity + Prof. Supratim Datta Short Talk – 7min + 3 Min Genetic testing in Pediatric Cardiology - relevance in practice today. Debabrata Nandi + Dr.Dipanjana Datta Panel Discussion - 40 Minutes Topic – Common arrythmias in Pediatric Cardiology Moderator – Dr. Debasree Gangopadhyay ; Panellist – Dr. Nurul Islam, Dr. Debadatta Mukhopadhyay, Dr. Aritra Mukherjee,Dr. Lopamudra Mishra, Lead discussant - Dr. Subhendu Mondal	Dr. Sandip Sen, Dr. Jaga Bandhu Guchhait
13.20 –	Respiratory Panel	Difficult Asthma – 40 minutes	Dr Tapas Das

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14.00 p.m.	Discussion	Moderator –Dr. Indranil Halder Pnelist – Dr. Kaushik Chakraborty, Dr. Suchismita Nath, Dr. Nihar Ranjan Mishra, DR. Rajyashee Chamaria Lead Discussant – Dr.Subhasish Roy	
14.00 – 15.30 p.m.	Intensive Care	Lecture - 20 minutes PALICC-2 – Highlights - Dr.Saumen Meur Short Talk – 7 min + 3 Min Transport of sick Newborn/child with CHD– what pediatricians should know ? Satarupa Mukherjee + Dr.Agnisekhar Saha Short Talk – 7 min + 3 Min Cytokine storm in PICU 7+3 Rohit Bhowmik+ Avishek Poddar Panel Discussion - 40 Minutes Paediatric emergency in Office practice – Unexpected threats Moderator – Dr.Shubhadeep Das; Panellist – Dr. Prabhas Prasun Giri, Dr. Kaushik Maulik, Dr. Krishanu Mondal, Dr. Saheli Dasgupta Lead Discussant – Dr.Bichitrovanu Sarkar	Dr. Partha Tripathy
15.30 – 15.50	Radiology	Niche in Radiology Prof. Swapan Kumar Ray	Dr.Azizur Rahaman, Dr.Subhasis Chakraborty
15.50– 16.40 p.m.	Developmental Ped Panel	Enhancing Developmental Potential in children – The nurturing care – what is new ? Moderator – Dr. Anjan Bhattacharya Panelist – Dr. Nilanjan Mukherjee, Dr. Sujit Kundu, Dr. Mousumi Mukherjee, Dr. Mandira Roy **Lead discussant - Prof. Ashok Datta**	Dr. Pampa Mukherjee

9th December 11 am – 1.30 pm	Poster Presentation		
Coordinator	**Judges Group**		
	Group A	Group B	Group C
Dr Moumita Samanta	Dr Kaustabh Chaudhury	Dr Mohammad Ali	Dr Arun K Manglik
Dr Sananda Pati	Dr Sanjukta Dey	Dr Sankar Das	Dr Gobinda Ch Das
Dr Rohit Bhowmik **Dr Niladri Bhunia**	Dr Atanu Roy	Dr Sayantan Mondal	Dr Sayan Chatterjee

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Day 1 09.12.23 HALL B – Dr. Nabendu Choudhury Hall

Time	Speciality		Chairperson
9 – 9.40 a.m.	Oral Paper	Dr Debasis Bandopadhyay, Dr Sk.Rafikul Rahaman, Dr Bibekananda Mukherjee, Dr. Sarbani Mishra	
9.40 – 11.10 a.m.	Adolescent	Lecture –20 minutes Paediatricians to psychiatrist - case studies -Dr Anirban Ray Short talk: 7+3 min Dr Ashim Ghosh + Dr. Santanu Ghosh (Nadia) Short talk: 7+3 min Dr Indu Surana + Dr. Swapna Chakraborty, Panel: 40 minutes Mod - Dr Sukanta Chatterjee Panellist: Dr Srabani Chakraborty, Dr. Madumita Bhattacharya ,Dr Ranjana Chatterjee , Dr Shilpi S Talukder Dr Swati Chakrabarti	Dr.Alok Kumar Pal,
11. 10 – 11.50 a.m.	Dr. Tapan Ghosh Memorial Oration	Changing Paradigms of Neurocritical Care - Prof. ARUN BANSAL	Dr.Asok Deb Prof. Ashok Dutta
11.50 – 13.10 p.m.	Infectious disease	Lecture – 20 minutes Non responding TB = Drug resistant TB? Prof. Ritabrata Kundu Short Talk 7 +3 mim Viral Pneumonia in post COVID Era Dr. Abhijit Misra + Moderator – Dr.Joshi Anand Kerketta Panel Discussion – 40 minutes Diagnostic pitfalls in infectious disease Moderator – Prof. Kalpana Datta, Panellist – Prof. Subhasish Bhattacharya, Prof. Malay Sinha, Dr. Nilanjan Ghosh, Dr. Ashish Banerjee Lead Discussant – Dr. Jaydeep Choudhury	Dr.Prabhabati Banerjee
13.10 – 14.00 p.m.	Sponsor Talk	Serum Institute – Hexavalent Vaccine Dr. Amita Sinha - 15 minutes GSK –Need for long-term protection against hepatis A in India –Dr. Samik Hazra – 20 minutes Cipla Neuro – Cannabidiol Special reference to refractory Epilepsy– Dr.Jigyasha Sinha – 15 minutes	Dr. Partha Karmakar Dr. Arijit Chattopadhyay

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14.00 – 15.30 p.m.	Rheumatology	Lecture- 20 Mints Pediatric Rheumatology-What's New? Clinical Pointers for Practitioners- Dr Tapas Sabui Panel-40 Mints Monitoring of "JIA &cLE" in Follow up- Learning Issues for Residents Moderator- Dr Priyankar Pal Panelist-Dr Suparna Guha Dr. Jigna Bathia , Dr Sumantra Sarkar, Dr Dona Banerjee Lead Discussant - Dr Prabir Bhowmik Symposium-20 Mints (10X2) Newer Insights in Diagnostics & Therapeutics Moderator- Dr Rakesh Mondal Newer Insights [Diagnostics] in Immunology Lab- Dr Sanjib Mondal Newer Insights [Therapeutics] Biologics & JAK Inhibitor- Dr Abhra Chowdhury	Dr.Amal Jyoti Dasgupta, Dr.Jnanabrata Ganguly
15.30 – 16.20p.m.	Mixed Bag	Lecture – 15 minutes 15.30 – 15.45 Abdomen the pandora box – Dr. Tapan Joyti Banerjee Lecture 15 minutes - 15.50 – 16.05 ABC of CBC – New insight to most common investigation – Prof. Kaustav Nayek, Lecture – 16.05 – 16.20 Sponsor Talk Zydus Wellness – Dr. Dibyendu Raychaudhuri	Dr. Kalpana Datta Dr. Keka Datta
16.20 – 16.40	Key note lecture	Prof. Apurba Ghosh – Introspect into Inborn error of metabolism	Dr.Arup Roy, Dr. Atanu Jana

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Day 2 - 10.12.23 HALL -A - Dr. Dilip Mahalanabis Hall

9.00 – 10.30 a.m.	Neurology	Key tone - 20 minutes- Understanding Epilepsy Syndromes Made Easy Dr. Arijit Chattopadhyay Short Talk –(7min + 3 min)x2 Migraine in children what paediatricians need to know Pradip Paria + Dipankar Gupta Management of Stroke in children Dr. Arundhuti Banerjee+ Somesuvra Bose Panel Discussion - 50 Minutes Approach to febrile encephalopathy Moderator –Dr.Jashodhara Chaudhuri ; Panellist –Dr.Snigdhendu Ghosh,Dr.Agnisekhar Saha,Dr.JigyashaSinha,Dr.Suman Das, Dr. Sudip Saha	Dr. Biplab Banerjee Dr Gautam Sadhukhan (JR)
10.30 – 11.10	Dr. S.P. Ghosal Memorial Oration Plenary	Prof. Piyush Gupta -IAP Guidelines 2023 on Rickets and vitamin D deficiency	Dr. Pradip Mukherjee Prof. Kalpana Datta
11.10 – 12.40	Haemato-oncology	Lecture – 20 minutes Treatment of acute ITP – An outline Dr.Rajat Bhattacharya Short Talk – 7 min + 3 min Childhood Leukemia – Tips to early diagnosis Dr. Tusti Gaguli + Moderator Dr. Sumana Kanjilal Short Talk – 7 min + 3 min Short Talk – Febrile Neutropenia – Approach Speaker – Dr.NiharenduGhara Moderator – Prof. Avijit Datta Panel discussion – Haemolytic anaemias with several faces Moderator – Dr. Pritam Sinha Roy Panelist – Dr. Subham Bhattacharya, Dr. Deepsika Maity Dr.KaushambhiKar, Dr Sneha Agarwal Lead Discussant - Dr. Taraknath Ghosh,	Dr. Arup Kumar Guha, Dr. Pradyut Kumar Mandal Dr.Nanigopal Chakraborty

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12.40 – 14.10	Endocrine	Lecture – 20 minutes - 12.40 – 13.00 Approach to PCOS in adolescents– Prof Subhankar Chowdhury Short Talk – (7 + 3 minutes)X 2 - 13.00 – 13.20 Long term management of children with diabetes Dr. Hriday Dey + ModeratorDr Amiya Kumar Ghatak Developmental Disorder of sex – Need of awareness Dr. Debaditya Das+ ModeratorDr. Subrata Dey Lecture – 20 minutes 13.20 – 13.40 Pediatric Endocrine case conundrum – Dr. Subrata Dey Short talk – (7 + 3minutes)X 2 – 13.40 – 14.00 Hypothyroidism – update – Speaker Dr. Sumana Kundagrami Moderator – Arijit Das Short Talk – 7 + 3 minutes Short Stature – approach Speaker – Dr. Kakali Roy , Moderator – Dr. Chandrakanta Ghosh	Dr.Mosaraaf Hossain,
14.10 – 14.50	Nutrition	Complementary feeding - How to overcome bottle need Moderator - Dr. Jaydeep Das Panelists - Dr. Balai Chandra Karmakar, Dr. Banasree Roy Dr. Manjari Basu, Dr. Kanta Datta Dr.Nishantadeb Ghatak Lead Discussant – Prof. Rita Chatterjee	Dr. Minati Pal
14.50 – 16.10	Young Talent	Technology in Medicine – Dr. Subhendu Dey – 14.50 – 15.05 Sponsor Talk – Sanofi -Dr. Samik Hazra – 15.05 – 15.25 Debate – 15.30 – 15.50 Pediatric Practice – Hospital vs Own Clinic Hospital – Dr. Punit Goenka - 7mim + 1 mim rebuttal Own Clinic – Dr. Shaon Mitra 7 mim + 1 mim rebuttal Moderator – Dr. Amlan Mukherjee (Mail resend) – 4 minutes summary Debate 15.50 – 16.10 NCC with 1 episode seizure – treat or not to treat Treat –Debashree Guha Not to treat – Dr.Soumi Kundu Moderator – Dr. Goutam Sadhukhan (SR)	Dr. Samir Ranjan Das

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DAY 2 10.12.23 - Hall B -Dr. Nabendu Choudhury Hall

9.00 – 10.30 a.m	**Nephrology**	**Lecture – 20 minutes** **Attending deliveries with swollen kidneys: what next?** **Dr Sushmita Banerjee** **Debate: Furosemide for rescue in all AKI;** **Favour: 7min: Dr Subhankar Sarkar** **Against: 7min: Dr Niladri Bose** **Rebutal: 1 min each** **Discussion by moderator: 4 min:** **Dr. Sakil Akhtar** **Panel Discussion - 40 minutes :** **Managing FRNS/SDNS in office practise as per latest Indian guideline** **Moderator: Dr Sumantra Raut** **Panelists: Dr Moumita Samanta** **Dr Rupa Biswas** **Dr Dibyendu Roy Chaudhury** **Dr.DeblinaDasgupta** **Lead Discussant –Dr. Rana Saha**	**Chairperson** **Prof. Mousumi Nandy**
10.30 – 11.10	Dr. S.P. Ghosal Memorial Oration Plenary	Prof. Piyush Gupta -IAP Guidelines 2023 on Rickets and vitamin D deficiency	Dr. Pradip Mukherjee Asansol, Prof. Kalpana Datta
11.10 – 12.40	Neonatology	Lecture – 20 min **Oxygen therapy in newborn - Dr. Jaydeb Roy** Short Talk – 7 +3 min Neonatal Schock – recent updates Dr. Aritra Roy + ModeratorDr.Brajagopal Roy Short Talk – 7 +3 min Persistent Hypoglycaemia – Approach Dr.SoutrikSheth +Dr. Kakali Achariya Panel discussion – 40 minutes Neuroprotection in asphyxiated newborns Moderator – Dr. Sumita Saha Panelist – Dr. Devdeep Mukherjee, Dr. Saugata Chowdhury,Dr. Bhaswati Ghosal Dr. Moumita Ghosh, Lead Discussant – Dr.Brajagopal Roy	Dr. Indranil Chowdhury, Dr.DilipProdhan

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12.40 – 14.10	**Vaccine**	**Lecture – 20 Min** **Adolescent Immunization – Kripasindhu Chatterjee** **Short Talk -- (7+3) X2** **Rotavirus Vaccine: Current Overview – Dr. Ritesh Kumar Sigh** **Upcoming Developments in Pneumococcal Vaccine – Tirthendu Halder** **Panel Discussion – 40 min Vac Confusion Answered** **Moderator: Abhijit Sarkar** **Panelists: Suhit Banerjee,, Kakali Mukherjee, Purnaa Ghose, Sayantan Mandal, Swagata Lahiri**	**Dr. Bhabani Sankar Das,** **Dr. Swapan Kumar Tamili**
14.10 – 14.50	Mixed Bag 10 min X 4	Lecture – 8 minutes plus 2 minutes Moderator for each talk Safety culture in patient care – Role of Simulation – Dr.Satyabrata Roy Chowdhury How to improve patient footfalls at your clinic – 10 points Dr. Anindya Kundu, Moderator – Dr. Sumita Basu Pediatric Hypertension – Key Points – Dr. Satyaki Das ,Moderatoror – Dr. Nitish Kumar Pseudo Seizure and seizure mimics - Dr. Bonny Sen Moderator – Dr. Sumita Basu	Dr. Prabodh Chandra Manda, Dr. Abdul Habib
14.50 – 16.10	Sponsor talk/Young Talent	Lecture – 14.50 – 15.10 Financial freedom for doctors – Mr. Siddhartha Chatterjee Moderator – Dr. Anish Chatterjee Sponsor talk Pfizer – 15.10 – 15.30 Evolving Epidemiology of Pneumococcal Serotype Distribution and choosing PCV in Paediatrician's practice – Dr. Abhijit Sarkar Lecture –15.30 – 15.50 Challenges in establishing Lactation: confusions and consensus Dr.Agnimita Giri – 15 minutes Expert – Dr.Bholanath Aich– 5 minutes Debate – 15.50 – 16.10 Bronchiolitis in a 4 month old child – I prefer bronchodilator For – Dr. Manas Mahapatra Against – Dr. Arpita Khemka Moderator – Dr.Amita Sinha	Dr. Partha Sarathi Dutta, Dr. Daibaki Halder Dr.Mrityunjoy Niyogi

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WORKSHOP

8th December 2023 Time: 8.30AM to 4.30PM

Venue:B R Singh Hospital Auditorium

Course Coordinator : DR SHILPI S TALUKDAR (9433210194)

Adolescent Health in Office Practice

Time	Toipc	Faculty	Expert
8.30 – 9AM	Registration & Inauguration		
9-9.30AM	Introduction of participants AND Overview of the Workshop	Dr Shilpi Siddhanta	
9.30-9.55AM	Common Adolescent Health issues	Dr Santa Chattopadhyay	
9.55-10.20	Setting up of an adolescent clinic in govthospt or private practice	Dr Rajyashree Chamaria	Dr KalpanaDatta
10.20-10.45	Clinical approach to an adolescent case- before & during exam HEADS	Dr Sonali Ghosh	Dr Sukanta Chatterjee
10.45-11.10	Adolescent Concerns &Counselling	Dr Bholanath Aich	Dr Atanu Bhadra
11.10-11.35	Cognitive Behaviour Therapy - CBT	Dr Drishti Kothari	Dr Ranjana Chatterjee
11.35-12.00	Adolescent Anxiety-Depression	Dr Debasis Bandopadhyay	Dr Debasis Bandopadhyay
12.00-12.25	Adolescent suicide	Dr Aparajita Das	
12.25-12.50	POCSO and other Acts	Dr Benoj Maji	Dr Shamik Ghosh
12.50-1.15PM	Adolescent Behaviour problems	Dr Shilpi S Talukdar	Dr Srabani Chakravarty
1.15-2 PM	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK
2-4 PM	4 Work Stations (30mx4)	Dr Kamirul Islam Dr NandanRudra Dr Rajashree Sinha Dr Amita Sinha Mondal Dr Dhritidipa Choudhury	Dr Swapan Kr Ray Dr Ashok Datta Dr Asim Ghosh Dr Ranjana Chatterjee
4 – 4.30PM	Valedictory		

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WORKSHOP

8th December 2023 Time: 9.15 AM to 4.00 PM

Venue:Park Clinic

Course Coordinator : Dr Jasodhara Chaudhuri (9874548688)

Pediatric Neurology Workshop

Basics of Electrophysiology,Anti seizure medications when to start and stop, Drug resistant epilepsy,Interpretation of genetic reports

Time	Topic	Faculty
09.15-09.30	Welcome	
09.30-10.00	Indications of doing EEG in a child and the basics of EEG	Dr Jigyasha Sinha
10.00-10.30	activation methods and non epileptiform discharges and artifacts	Dr Jasodhara Chaudhuri
10.30-11.00	some EEG patterns in Childhood epilepsies	Dr Arijit Chattopadhyay
11.00-11.30	Epileptic Encephalopathies	Dr Pradip Paria
11.30-12.00	Loopholes in pediatric EEG and difficulties in reading	Dr Jeevan Silwal
12.00 -12.30	ICU EEGs	Dr Amit Haldar
12.30 -12.45	**LUNCH**	
12.45-01.15	Basics of NCV and EMG	Dr Arundhati Banerjee
01.15-01.45	genetic reports ---what are we getting and how to interprete	Dr Dipanjana Datta
01.45-03.45	Workstation Hands on Dr Amit Haldar	Dr Aparajita Chatterjee Dr Arijit Chattopadhyay Dr Jasodhara Chaudhuri
	Vote of Thanks	

We will give basic reading materials

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INDIAN ACADEMY OF PEDIATRICS

West Bengal Academy of Pediatrics

WORKSHOP

8th December 2023 Time: 8.30AM to 4.30PM

Venue: Medical College Kolkata

Course Coordinator:
Dr Sumantra Kumar Raut (8240852469)
Dr Dibyendu RayChaudhuri (9433415560)

Nephrology Workshop

UTI Workup and Interpretation of Renal Imaging in Office Practice

TIME	TOPIC	SPEAKER	CHAIRPERSON/s
08:30 - 09:00	**Registration, Welcome & Pre-Test**		
09:00 – 11:00	**Case- based session**		
09:00 –09:30 (20+10 min QA)	3 common mistakes in diagnosing UTI (Asymptomatic CS +, sterile pyuria, CS neg UTI)	Dr Dibyendu RayChaudhuri	A
09:30 - 10:00 (20+10 min QA)	3 common mistakes in ordering urine testing (post antibiotic sample, Bag sample, asymptomatic sample)	Dr Niladri Bose	A
10:00 - 10:30 (20+10 min QA)	Renal imaging: **WHAT** to do, **WHEN** to do, **HOW**to interpret the basics	Dr Sumantra Raut	B
10:30 - 11:00 (20+10 min QA)	Delayed referral: does it matters (renal derangement, scarring, bad bugs)	Dr Rajiv Sinha	B
11:00- 11:30	TEA BREAK		
11.30 - 13:00	**Group discussion (non-parallel sessions)**		
30 min each session	**Team X** (Pt History) 11:30 – 12:00	**Team Y** (Examination) 12:00 - 12:30	**Team Z** (Management) 12:30 - 13:00
	What NOT to miss in a busy OPD; Respect bowel habit; Voiding diary: how to explain mom	What's extra….; Pointers of complication; Blood pressure	Choose route/ duration of antibiotics; Bad bug: now what? Supportive treatment
Faculty	**Dr Sumantra Raut** Dr Dibyajyoti Dey Dr Subhojit Bhakta	**Dr Dibyendu RayChaudhury** Dr Rana Saha Dr Manik Kataruka	**Dr Niladri Bose** Dr Shakil Akhtar Dr KaushambiBasu
13:30 – 14:00	Lunch		
14:00 – 16:00	**Hands On Sessions (parallel sessions)**		

	Team A (USG)	**Team B** (MCUG)	**Team C** (DMSA)	**Team D**(DTPA/ UDS)
(30 min each session by rotation)	What to ask in report; Point wise interpretation of normal findings; 4 case-based abnormal USG; Timings; Advancement	Point wise interpretation of normal findings; 4 case-based abnormal MCUG; Timings; Precautions; Advancement	When NOT to do DMSA; Point wise interpretation of normal findings; 4 case-based abnormal DMSA; Timings	Indications; Overview of interpretation of normal findings; 2 case-based abnormal DTPA/ UDS; Timings
Faculty	Dr Sudipta Saha(Radio) **Dr Niladri Bose** Dr Jayati Sengupta	Dr Punam Guha(Ped Sx) Dr Subhankar Sarkar **Dr Aditi Das**	Dr Dhrtiman Chakraborty (Nuclear Meds) **Dr Dibyendu RayChaudhury** Dr SubhasisSaha (Ped Sx)	**Dr Sumantra Raut** Dr Biplab Maji Dr Subhojit Bhakta
16:00 – 16:30	Concluding remarks, Post-Test and Feedback			

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 8.30AM to 5.00 PM

Venue: Calcutta National Medical College (CNMC)

Coordinator : Dr Rupa Biswas (8017938805)

POCUS
Point-of-Care Ultrasound

Time	Topic		Speaker
08.30-09.00	BASICS OF ULTRASONOGRAPHY		Dr Soumen Meur
09.00-09.20	NEONATAL INTRACRANIAL USG		Dr Bhaswati Ghosal, Dr Dinesh Munian
09.20-09.50	FUNCTIONAL ECHO AND IVC MEASUREMENT		Dr Debdutta Mukhopadhyay, Dr Lopamudra Misra
09.50-10.15	LUNG USG		Dr Prabhas Prasun Giri Dr Mahammad Ali Dr Niladri Sekhar Bhunia
10.15-10.45	ONSD AND TCD		Dr Soumen Meur, Dr Soumyadeep Paria
10.45-11.10	EFAST		Dr Sandip Kumar Mondal, Dr Debarghya Pan
11.10- 11.20	**TEA BREAK**		
11.20-11.40	AIRWAY AND DIAPHRAGM		Dr Rupa Biswas Dr Pramita Das
12.00-02.15	WORKSTATION 1 INTRACRANIAL USG Dr Bhaswati Ghoshal Dr Dinesh Munian	WORKSTATION 2 LUNG USG Dr Prabhas Giri Dr Md ALI Dr Niladri Sekhar Bhunia	WORKSTATION 3 FUNCTIONAL ECHO Dr. DebaduttaMukhopadhya Dr Lopamudra Misra
02.15-02.45	**LUNCH**		
02.45-05.00	WORKSTATION 4 ONSD/ TCD Dr Soumen Meur Dr Soumyadeep Paria	WORKSTATION 5 EFAST Dr Dr Sandip Mandal Dr Debarghya Pan	WORKSTATION 6 AIRWAY AND DIAPHRAGM Dr Rupa Biswas Dr Pramita Das

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 8.30AM to 5.00 PM

Venue: 8th floor seminar room OPD building IPGMER AND SSKM Hospital

Coordinator : Dr Satyabrata Roy Chowdhoury

Chief patron : Prof Supratim Datta, HOD Pediatric, IPGMER

Advisors : Prof Sumana Kanjilal, Prof Mrinal Kanti Das

BASIC PEDIATRIC VENTILATION WORKSHOP

Organized by department of Pediatrics, IPGMER and SSKM hospital with collaboration with WBAP as pre-conference workshop of WB state PEDICON

8:30. to 9 am Registration		
9 to 9:20 am	Physiology of respiration	Dr Rohit Bhowmik
9:20 to 9: 50 am	Basic modes of ventilation	Dr Agnisekhar Saha
9:50 to 10:20 am	Ventilator graphics	Prof Mihir Sarkar
10:20 to 10:50 am	Short Talk	
	PRVC mode: 15 min	Dr Guruprasad HS
	Daily round : 15 min	Prof Moumita Samanta
10:50 to 11:10 am	Weaning from ventilator	Dr Satarupa Mukherjee
11:10 to 1:10 pm: Work station 40 min each		
Know your ventilator **Dr Guruprasad HS,** **Dr Nupur Bajpayee,** **Dr Soumi Bag**	Care of ventilated child Prof Moumita Samanta Dr Sananda Pati Dr Sanjukta Saha	Non invasive ventilation Dr Manas Kr Mahapatra Dr Sayantan Mondal Dr Koushwambi Kar
1:10 pm to 1:30 pm	Inauguration	
1:30 to 2:30pm lunch break		
2:30 pm to 4:30 pm Work stations on Disease specific ventilation: 40 min each		
Obstructive airway disease **Dr Rohit Bhowmik** **Dr Nupur Bajpayee** **Dr Sanjukta Saha**	Neuro and Cardiac cases Dr Satarupa Mukherjee Dr Dipankar Gupta Dr Soumi Bag	ARDS ventilation Dr Agnisekhar Saha Dr Manas Kr Mahapatra Dr Sayantan Mondal
4:30 to 4: 45 pm : Tea beak and interaction doubt clearing		
4:45 to 5 pm : Valedictory and vote of thanks		

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 8.30AM to 4.30 PM

Coordinator : Dr Shubhadeep Das (9830428960)

Venue: Narayana Superspeciality Hospital, Howrah

BASIC PEDIATRIC CARDIAC CRITICAL CARE WORKSHOP

BACKGROUND AND LEARNING OBJECTIVES:

Cardiac Intensive Care is a relatively newer and booming subspeciality in India. This foundation workshop is directed towards general pediatricans and pediatric intensivists with interest in cardiac critical care and supposed to be a stepping stone in Pediatric Cardiac ICU

Learning Objectives:

- Gain basic insights on recognition and initial management of congenital cardiac diseases in children
- How and when to stabilize and transport sick children to higher centers
- Understand salient physiology of common cardiac diseases in children
- Gain fundamental understanding about ventilating cardiac patients
- Have basic knowledge of managing children after cardiac surgery
- Understanding the role of ECMO in stabilization of Cardiac patients
- Comprehensive hands-on sessions
- Essential hands-on experience and understanding of **Echocardiography for a Pediatrician/ Intensivist**

WHO SHOULD ATTEND?

- Pediatricians
- Neonatologists
- Paediatric Intensivists
- Pediatric Cardiologists
- Pediatric Cardiac Surgeon
- Nurses

42 WB STATE PEDICON

PROGRAM SCHEDULE

Time	Topics	Faculty
08.30- 08.45	Registration	
08.45- 09.00	Inauguration	
09.00-09.20	Approach to a neonate with respiratory distress+- cyanosis: How to identify a cardiac problem-	Aritra Mukherjee
09.20-09.40	Pre op stabilization and transport of children with congenital heart diseases to cardiac centers-	Rashid Ayubi
09.40-10.00	Heart failure: ICU management and looking beyond drugs-	Shubhadeep Das
10.00-10.20	Cardiopulmonary interactions-	Sananda Mukherjee
10.30-10.50	Receiving a patient in ICU: Post bypass care-	Nilanjan Dutta
10.50-11.00	Tea Break	
11.00-13.00	Break for workstations (Scenario Based)	
	A. Management of Low Cardiac Output State post cardiac surgery-	Rashid Ayubi/ Rhitajyoti Sengupta
	B. Common arrhythmias in CICU-	Rishika Mehta/ Aritra Mukherjee
-	C. Ventilation strategies of Cardiac patients	Shivani Gajpal/ Kaushik Maulik
13.00-13.30	Lunch	
13.30-15.45	Break for Workstations	
	A. Basics of ECMO and demonstration of machine	Kaushik Maulik and perfusionist
	B: Epicardial pacing and Pacing Box-	Shubhadeep Das/ Shivani Gajpal
	C: Uses of iNO and demonstration of machine + Management of post operative severe pulmonary arterial hypertension-	Rhitajyoti Sengupta/ Sananda Mukherjee
	D: Functional Echocardiography-	Rishika Mehta/ Aritra Mukherjee
	TITBITS AFTER A LONG DAY	
15.45-16.10	Pro Con Debate-ICU Physicians and not cardiac surgeons should lead Pediatric Cardiac ICUs.	Pro : Shubhadeep Das Con : Debasis Das
16.10-16.30	Valedictory, group photos, certificate distribution	

FACULTY

- Shubhadeep Das: Senior Consultant, Pediatric Cardiac ICU/ PICU; NH Narayana Superspeciality Hospital, Howrah
- Debasis Das: Senior Consultant, Congenital Cardiac Surgery; NH Narayana Superspeciality Hospital, Howrah
- Nilanjan Dutta: Consultant, Congenital cardiac Surgery; NH Narayana Superspeciality Hospital, Howrah
- Shivani Gajpal: Consultant, Cardiac Anesthesia; NH Narayana Superspeciality Hospital, Howrah
- Rhitajyoti Sengupta: Consultant, Pediatric Cardiac ICU; NH Rabindranath Tagore Institute of Cardiac Sciences, Kolkata
- Rashid Ayubi: Consultant, Cardiac Surgery; Narayan Memorial Hospital, Kolkata
- Sananda Mukherjee: Consultant, PICU; Fortis Hospital, Kolkata
- Kaushik Maulik: Consultant, PICU; Apollo Hospitals, Kolkata
- Aritra Mukherjee: Consultant, Pediatric Cardiology, NH Narayana Superspeciality Hospital, Howrah
- Rishika Mehta: Junior Consultant, Pediatric Cardiology, NH Narayana Superspeciality Hospital, Howrah
- Iram Fatema: Clinical ECMO Specialist, Maquet
- Kanchan Bhattacharya: Perfusionist, NH Narayana Superspeciality Hospital, Howrah

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 8.00AM to 5.00PM

Venue:Department of Neonatology, 8th Floor IPGME&R and SSKM hospital

Course Coordinator :Dr Bijan Saha

WORKSHOP ON NASAL INTERMITTENT VENTILATION (NIV) AND LESS INVASIVE SURFACTANT REPLACEMENT THERAPY (LISA)

08.30-09.00	**Registration**	
09.00-09.15	Introduction, pretest	
09.15-09.40	Demo lecture:Introduction and assessment of respiratory problems –scoring systems (including video of signs)	Saugata Chowdhury
09.40-10.40	PPT: CPAP practical aspects initiation, maintenance, weaning & monitoring	Bijan Saha
10-40-11.40	PPT: Nasal ventilation (NIPPV and NHFOV)	Soutrik Seth
11.40 -12.00	Practical aspects of surfactant therapy including LISA video/In-Sur-E	Md . Habibullah SK
12.00 -12.15	Humidification	Rakesh Dey
12.15-01:45	Workstations by rotation (three groups):	All faculty
Group 1 : **NIPPV, NAVA andCPAP machines, Circuit (SS, SC, RB)**	**Group 2.** Interfaces & fixation (1& 2demo followed by hands on) (BM, HS DM, DG)	**Group 3.** Monitoring (Humidification) & trouble shooting (including monitoring chart) (RD, TR, AR, MG)
01.45-02.30	LUNCH	
02.30 -03.30	NIPPV, NHFOV & SNIPPV demonstration with lung simulator	
03.30-04.00	Tea	
04.00-04.30	Bedside round for NIPPV, NHFOV	
04.30-05.00:	Q & A, Post test Certificate distribution	

Faculties:

1. Dr. Saugata Chaudhuri , DM (IPGMER)
2. Dr. Sautrik Seth , DM (IPGMER)
3. Dr. Rakesh Dey, DM (IPGMER)
4. Dr. Md . Habibullah SK DM (IPGMER)
5. Dr. BijanSaha DM (AIIMS)
6. Dr. RajibLosan Bora (IPGMER)
7. Dr. Tanima Roy (IPGMER)
8. Dr. Devdeep Mukherjee MD (Mission hospital, Durgapur)
9. Dr. Aritra Roy DM (LHMC, Delhi) (Neotia Hospital, Siliguri)
10. Dr. Debjani Gupta MD (Kolkata)
11. Dr. Moumita Ghosh DM (IPGMER) (RG Kar. Kolkata)
12. Sister Baby Mondal(IPGMER)

42 WB STATE PEDICON

8th December 2023 Time: 9.00AM to 4.30PM

Venue:Bhagirathi Neotia Women and Child Care Center, New Town

Course Coordinator : Dr Somenath Gorain, Dr Shalini Agarwal

WORKSHOP ON PICU & NICU Procudure

Topic	Speaker
Asepsis during any procedure	Dr. Bikramjit Das
Disposal of waste	Dr. Gobinda Mondal
WORKSTATION 1	
Topic	**Speaker**
Basic Airway management (Position, oral and nasal airway, intubation and LMA insertion)	Dr. Krishanu Mondal, Dr. Nandini Sinharay, Dr. Partha Pratim Halder
Difficult Airway - Video laryngoscopy, Bronchoscopy guided intubation, tracheostomy	Dr. Gopa Das, Dr. Somenath Gorain, Dr. Monideepa Dutta
Intercostal Drain Insertion	Dr. Somak Krishna Biswas, Dr. Saheli Dasgupta, Dr. Gobinda Mondal
Surfactant delivery	Dr. Bikramjit Das, Dr. Amrita Roy Chakraborty, Dr. Shalini Agarwal
WORKSTATION 2	
Topic	**Speaker**
Central Venous line insertion USG guided	Dr. Krishanu Mondal, Dr. Saheli Dasgupta, Dr. Gobinda Mondal
IO and PICC	Dr. Nandini Sinharay, Dr. Amrita Roy Chakraborty
PD Cathether insertion	Dr. Somenath Gorain, Dr. Manideepa Dutta
Umbilical artery / Vein Catheter	Dr. Amrita Roy Chakraborty, Dr. Shalini Agarwal
CERTIFICATION	

Neotia Bhagirathi Woman and Child Care Centre

AmbujaNeotia

neotiahospital.com

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 9 AM to 5 PM

Venue: Golden Jubilee Hall, 3B Lansdowne Place (Near RKM)

Course Coordinator : Dr Mandira Roy (Contact- 9474166223)

A SPECIAL CHILD IN THE CLASSROOM
Sensitization Workshop for School Teachers

Time	Topic	Faculty
09.00-09:30	Registration	
09:30-10:00	Introduction	Dr Nandita Chatterjee
10:00-10:30	Normal Development	Dr Mousumi Mukherjee
10:30-11:00	Common challenges	Dr Kalyanbrata Mandal
11:00-11:30	Red flags and Screening	Dr Mandira Roy
11:30-12:15	When you face a 'special' child…	Dr Nandita Chatterjee
12:15-13:00	Requirements of 'special needs' children	Dr Mousumi Mukherjee
13:00-13:45	Lunch	
13:45-14:15	Developmentally supportive class environment	Dr Mandira Roy
14:15-15:00	Problems in the Classroom—how to accommodate	Interactive session Moderation: Dr Nandita Chatterjee
15:00-15:30	Socialization and integration in class	Dr Kalyanbrata Mandal
15:30-16:30	Handling Inappropriate behaviour: with role play	Dr Nandita Chatterjee & Dr Srabani Chakraborty
16:30-17:00	Valediction	

42 WB STATE PEDICON

WORKSHOP

8th December 2023 Time: 8.30AM to 4.00PM

Venue: Peerless Hospital

AIRWAY and ALLERGY WORKSHOP

Time	Details	Faculty
8.30 am	Registration	
	SETTING THE CONTEXT FOR THE WORKSHOP	
09.15-09.20	Welcome address	
09.20-09.35	History taking in an Allergic Patient	Dr Shamik Hazra
09.35-09.50	Skin Prick Testing : The basics -	DrBinayak Roy
09.50-10.10	Skin Prick Tests :Strengths and Limitations	Dr Nihar Ranjan Mishra
10.10-10.30	Allergy Testing -Immunocap Method -	DrRashmi Ranjan
10.30-10.55	Component Resolved Diagnostics : New generation Testing -	Dr Sanjukta De
10.55-11.15	Drugs and Allergy	Dr. Kaushik Chakraborty
11.15-11.45	Case Based approach to allergy Testing Which test and when -	Moderator Dr Sanjukta De Panelists- All Faculty
11.45-12 noon -	Question and Answer-interactive session with audience	Moderator Dr Binayak Ray
12noon-12.15	Inauguration	
	Followed by lunch break	
01.00-01.20	Recent advances in Allergic Rhinitis: Good practice guidelines	Dr Nihar Ranjan Mishra
01.20-01.45	Recent advances in Asthma: Changes in the Gina guidelines	Dr. Kaushik Chakraborty
	Tea Break	
02.00-4.00	workstations	
Group A -	Hands on skin Prick testing	Dr Binayak Ray and Dr Nihar Ranjan Mishra
Group B -	How to interpret immunicap and CRD reports	Dr Sanjukta De and Dr Rashmi Ranjan
Group C -	Asthma and AR -Choosing the right spacer , Use of Peak Flow meter in OPD,Spirometry interpretation -	Dr Samik Hazra Dr. Kaushik Chakraborty
Each workstation for 30 mins and then change over		

Presidents and Secretaries : West Bengal Academy of Pediatrics

Year	President	Secretary
1965	Dr M L Biswas*	Dr D N Chatterjee*
1966-73	Dr M L Biswas*	Dr Shyamapada Khatua*
1974	Dr M L Biswas*	Dr Tirthankar Dutta*
1975	Dr Sisir Kr Bose*	Dr Tirthankar Dutta*
1976	Dr Shyamapada Khatua*	Dr Umasankar Sarkar
1977	Dr Shyamapada Khatua*	Dr Umasankar Sarkar
1978	Dr D N Chatterjee*	Dr Dilip Mukherjee
1979	Dr S P Ghosal*	Dr Dilip Mukherjee
1980	Dr Hari Sadhan Dutta*	Dr Shib Sankar Sinha*
1981	Dr (Mrs) Momota Chowdhury*	Dr Madan Mohan Das*
1982	Dr Rafique Ahmed*	Dr Madan Mohan Das*
1983	Dr Bijon Kr Chakraborty*	Dr Madan Mohan Das*
1984	Dr Umasankar Sarkar	Dr Swadesh Ranjan Banerjee*
1985	Dr Tirthankar Dutta*	Dr Swadesh Ranjan Banerjee*
1986	Dr Shanti Indra*	Dr Swadesh Ranjan Banerjee*
1987	Dr Kalyan Kumar Pramanick*	Dr Swadesh Ranjan Banerjee*
1988	Dr Nishit Ranjan Pan	Dr Mrinal Kanti Chatterjee
1989	Dr Debabrata Chatterjee*	Dr Mrinal Kanti Chatterjee
1990	Dr Satyendra Narayan Basu*	Dr Mrinal Kanti Chatterjee
1991	Dr Santosh Kr Mukherjee*	Dr Atanu Jana
1992	Dr Asis Kr Chakravarty*	Dr Atanu Jana
1993	Dr Pranab Kr Bhowmik*	Dr Tapan Kumar Ghosh*
1994	Dr Dilip Mukherjee	Dr Tapan Kumar Ghosh*
1995	Dr Swadesh Ranjan Banerjee*	Dr Tapan Kumar Ghosh*
1996	Dr Pranab Kr Roy Paladhi*	Dr Tapan Kumar Ghosh*
1997	Dr Gopi Ballabh Banik*	Dr Amarendra Nath Mondal*
1998	Dr Makhan Lal Mall	Dr Amarendra Nath Mondal*
1999	Dr (Mrs) Madhurima Lahiri	Dr Ritabrata Kundu
2000	Dr Nabendu Chaudhuri*	Dr Ritabrata Kundu
2001	Dr Bhaskarmoni Chatterjee	Dr Ritabrata Kundu
2002	Dr Arun Kr Mitra	Dr Debasis Biswas
2003	Dr Maya Mukhopadhyay	Dr Debasis Biswas
2004	Dr Dilip Kr Saha	Dr Sutapa Ganguly
2005	Dr Debajyoti Burmanray	Dr Sutapa Ganguly
2006	Dr Manas Mukherjee*	Dr Sushmita Banerjee
2007	Dr Tapan Kr Ghosh*	Dr Sushmita Banerjee
2008	Dr Sukanta Chatterjee	Dr Monjori Mitra
2009	Dr Mrinal Kanti Chatterjee	Dr Monjori Mitra
2010	Dr Amaresh De	Dr Nupur Ganguly
2011	Dr Ritabrata Kundu	Dr Nupur Ganguly
2012	Dr Sutapa Ganguly	Dr Jaydeep Choudhury
2013	Dr Sunil Kr Nag	Dr Jaydeep Choudhury
2014	Dr Madhusmita Sengupta	Dr Santanu Bhakta
2015	Dr Arup Roy	Dr Santanu Bhakta
2016	Dr Prabhabati Banerjee	Dr Kheya Ghosh Uttam
2017	Dr Gautam Ghosh	Dr Kheya Ghosh Uttam
2018	Dr Arun Kr Manglik	Dr Pallab Chatterjee
2019	Dr Mousumi Nandi	Dr Pallab Chatterjee
2020	Dr Atul Kr Gupta	Dr Madhumita Nandi
2021	Dr Subroto Chakrabartty	Dr Madhumita Nandi
2022	Dr Sushmita Banerjee	Dr Indranil Chowdhury
2023	Dr Kalpana Datta	Dr Indranil Chowdhury

* Personalities left us for heavenly abode

42 WB STATE PEDICON

INDIAN ACADEMY OF PEDIATRICS

West Bengal Academy of Pediatrics

MESSAGES

42 WB STATE PEDICON

INDIAN ACADEMY OF PEDIATRICS

West Bengal Academy of Pediatrics

Prof. (Dr.) Aniruddha Neogi
M.D. (Cal)
OSD & Special Secretary (Medical Education)
Department of Health & Family Welfare
Government of West Bengal

Swasthya Bhawan
GN-29, Sector-V, Salt Lake,
Kolkata - 700 091
Tel : +91 33 2333 0278
E-mail : ssmewb@gmail.com

No. DME-Spl.Corresp./2023/289 Dated : Kolkata, the 4th December, 2023

MESSAGE

I am very glad to know that the "West Bengal Academy of Pediatrics (WBAP) is going to organize their 42nd Annual State Conference "WB State PEDICON" from 9th to 10th December, 2023 at C.R. Suresh Neotia Hall, Sector-1, Saltlake.

Pediatrics is a branch of medicine that involves the medical care of infants, children, adolescents, and young adults. Eminent faculties, researchers, academicians in the field of pediatrics would gather to share their plethora of knowledge and research in all aspects related to pediatrics and thus to create an excellent platform for sharing, learning and revisiting knowledge with experts from various Institutes across the nation. The main focus of the Conference is to find the way out to address the challenges that faced the pediatricians in their day to day practice and highlight the major thrust areas in the latest scientific developmental point of view.

I hope the Conference would certainly provide a source of inspiration and motivation for the students and doctors to keep up their unity and also provide an excellent scientific environment for the researchers and academicians in the field of pediatrics to freely exchange their views and ideas to achieve meaningful and outstanding results.

I express my best wishes to all the participants in this conference and wish it a grand success.

Prof. (Dr.) Aniruddha Neogi
Osd & Special Secretary (Medical Education)
&
Director of Medical Education

42 WB STATE PEDICON

Dr. Siddhartha Niyogi
Director of Health Services
Department of Health & Family Welfare
Government of West Bengal

Ref. No. .....

Date 28-11-2023

MESSAGE

I am very happy to understand that the State PEDICON Team is going to organise the 42nd State Conference on 9th to 10th December, 2023 ar C11 Suresh Neotia Hall, Sector 1, Saltake and A colourful Souvenir will also be published to commemorate the happy and momentous occasion.

I am confident that this ceremony would be very beneficial to the participants and update them for better service to the community.

I express my best wishes to all the participants and wish it a grand success.

29.11.23

(Dr. Siddhartha Niyogi)

Swasthya Bhavan, GN-29, Sector-V, Salt Lake City, Kolkata - 700 091
Phone : (033) 2357 7903 ; Fax : (033) 2357 7904 E-mail : dhswestbengal@gmail.com, dhs@wbhealth.gov.in

42 WB STATE PEDICON

Message

Dr Upendra Kinjawadekar, President, CIAP 2023

Dear IAPians,

I am very happy to learn that the 42nd WB Statepediconis being hosted by West BengalAcademy of Paediatrics on 9-10th December 2023 at CII Suresh Neotia hall.

West Bengal state Pedicon has a reputation to design a wonderful scientific program enticing young minds to delve deeper towards achieving excellence in every sphere of pediatrics starting from neonatology, intensive care, immunization to adolescence.

The knowledge and reputation are the only two prerequisites that the organizing team have applied for choosing faculty. The rich mix of educational experiences includes discussions on burning topics in pediatrics from common sense teasers to recent advances which are interesting for both those in private as well as public sector practice. The scientific teamled by Dr Swapan Kumar Ray,Dr Supratim Datta, Dr Ashim Ghosh and Dr Abhijit sarkar&team have carefully designed Pre-Conference Workshops onvarious topics of practical importance like AED and EEG,UTI, Nephro imaging, Basic cardiac intensive care, Adolescent health in clinical practice and Allergy whichwill certainly help to fine tune our skills and thereby will improve the quality care provided to children.

I wish to congratulate and thank each IAP member of WB IAP for implementing various modules under Presidential action plan 2023 and for their active engagement in various IAP days. IAP has launched a new Sankalp Sampoorna Swasthya(SSS) programme in WB state, thanks to the tremendous efforts put in by our EZ VP Dr Bishwajeet Mishra, Dr Indu Surana, Dr Atanu Bhadra etc. Several IAP members attended ToT and the SSS coordinators are now training the school teachers the principles of positive lifestyle. This programme will be continued as IAP Project.

I sincerely compliment the Organising Committeeled byWBstate IAP President Dr Kalpana Datta our esteemed EB members Dr Kaustav Nayak, Dr Kripasindhu Chatterjee, conferenceConvener Dr Indranil Chowdhury, Reception committee chairperson Dr Asok Kumar DattaOrg Secretary Dr Mihir Sarkar, Dr Samik Hazra,and the entire organising team for their dedicated endeavours and I am confident thatWBPedicon 2023 will be a mega success.

Happy learning,

Dr Upendra Kinjawadekar
CIAP President 2023

42 WB STATE PEDICON

Message

Dr G V Basavaraja, President, CIAP 2024

My Dear IAPians,

It is with great enthusiasm and anticipation that I extend my heartfelt congratulations to the Organizing Committee of the West Bengal Pedicon. I am truly impressed by the meticulous planning and thoughtful curation evident in the workshops and conference topics.

The lineup of star speakers, Prof. Arun Bansal and Prof. Piyush Gupta, promises to elevate the discussions to new heights, adding immense value to the learning experience for all participants. Their expertise and insights are sure to contribute significantly to the depth and breadth of knowledge shared during this event.

The West Bengal Pedicon stands out as a beacon of excellence in its organization, reflecting the dedication and hard work of the entire committee. Your commitment to ensuring a seamless and enriching experience for all attendees is commendable.

Conferences like these serve as invaluable platforms for knowledge exchange, professional growth, and networking. I have no doubt that this event will be a great learning hub, fostering collaboration and innovation in the field of pediatrics.

In conclusion, I extend my sincere appreciation to the Organizing Committee, the speakers, and every participant for your collective efforts in making the West Bengal Pedicon an exceptionally organized and well-thought-out event. Your commitment to advancing pediatric healthcare is truly commendable.

Wishing you all a fruitful and enriching conference. May these days of learning and collaboration be filled with inspiration and insights that contribute to the betterment of pediatric care in our region.

Warm regards,
Prof. Dr. GV Basavaraja
President Elect 2023

42 WB STATE PEDICON

Message

Dr Biswajit Mishra, CIAP Vice President (East Zone)

I am quite happy to note that the 42nd West Bengal State Pedicon is being hosted at Kolkata on 9th and 10th of December 2023 by Academy of Pediatrics West Bengal.Hearty congratulations to the organisers and I am sure that this conference will provide 2 days of great academic and social services for both the delegates and the faculties.

The theme of the conference “Embrace the new change in patient care” is a thoughtful one and the need of the hour for better and timely care of newborns and children of the society. With speakers of National and International repute to deliberate- it's bound to be a successful conference.

I wish the conference a great success and am sure the Souvenir brought out on this occasion will be a great remembrance of the event.

Warm Regards,
Dr Bishwajit Mishra
VP, East Zone, CIAP 2023.

42 WB STATE PEDICON

Message

Dr Kalpana Datta, President, WBAP, Chairperson

President, WBAP

Dear Esteemed Members of the West Bengal Academy of Paediatrics (WBAP),

As we are going to have our 42 WB STATE PEDICON, I am honored and delighted to extend my heartfelt greetings to each and every one of you.It has been a genuine pleasure to serve as the President of the West Bengal Academic Paediatrics 2023.

The annual conference is a momentous occasion for our esteemed academy, bringing together a community of dedicated professionals committed to the health and well-being of our children.

This year's conference promises to be an enriching experience, filled with insightful discussions, clinical skills, practical clues and opportunities for networking and collaboration. Our theme for this conference, "Embrace the new change in patient care" underscores the importance of staying at the forefront of advancements in pediatric medicine to provide the best possible care for the children of West Bengal.

We need to be proactive and prepare for the future by shaping the changes necessary to achieve our mission and improve child health and development.

I would like to express my deepest gratitude to the organizing committee for their tireless efforts in putting together a comprehensive and engaging program in spite of their busy schedule. The lineup of distinguished speakers and panelistsfrom different corner of the state reflects the diversity and expertise within our pediatric community, ensuring that this conference will be both informativeand inspiring for the Pediatricians as well as students.

As members of the West Bengal Academy of Pediatrics, we share a common goal – the promotion of child health, the advancement of pediatric knowledge and involvement all pediatricians from grass root level to tertiary care. Let us use this conference as a platform to exchange ideas, foster collaboration, and collectively contribute to the betterment of pediatric healthcare in our state.

I encourage each of you to actively participate in the various sessions, engage in discussions, and take full advantage of the networking opportunities available. Your presence and active involvement will undoubtedly contribute to the success of this event.

In closing, I extend my best wishes for a productive, enlightening, and enjoyable State Annual Conference. May our collective efforts continue to shape the future of pediatric care in West Bengal.

Thank you,
IAP for all
With warm regards,

42 WB STATE PEDICON

Message

Dr Indranil Chowdhury, Hony, Secretary, WBAP, Convenor

Every Pedicon of West Bengal seems to say subtly - Mother stay with us. Don't go. As it happens in the last month of the year, carrying the aura and light of knowledge of the festivals. This great event of academy also welcomes a new year with goddesses Saraswati, the goddess of knowledge.

Thank you great minds of Bengal to organize such an event.

Dr Indranil Chowdhury
Hony. Secretary, WBAP

42 WB STATE PEDICON

Message

Dr Asok Kr Datta, President 2024, WBAP

Dear Attendees,

On behalf of the organizers and the entire medical community, we extend a warm welcome to the West Bengal Pediatrics State Conference. It is an immense pleasure to have you all join us for this esteemed gathering, where we will delve into the latest advancements and share knowledge in the field of pediatrics.

This conference serves as a platform for distinguished healthcare professionals, researchers, and educators to come together and exchange valuable insights, experiences, and best practices. The collective expertise in this room promises to foster innovation, collaboration, and ultimately enhance the quality of care for our young patients.

With a focus on nurturing the future of pediatrics, our conference will feature an array of engaging sessions, thought-provoking discussions, and interactive workshops. Through these extraordinary opportunities, we aim to inspire, educate, and empower each and every one of you to further elevate pediatric healthcare in our beloved state.

We are deeply grateful to our esteemed speakers and panelists who have graciously agreed to share their expertise and wisdom. Their dedication and commitment to advancing pediatric medicine will undoubtedly contribute to the success of this conference.

To optimize your experience, we have curated a comprehensive program that encompasses a wide range of topics, ensuring there is something valuable for everyone. Whether you are a seasoned practitioner or a budding pediatrician, we encourage you to actively participate, network, and embrace the wealth of opportunities this conference has to offer.

Finally, we would like to express our heartfelt gratitude to our sponsors and partners for their invaluable support, influencing and enabling us to bring this conference to fruition. Their unwavering commitment to advancing pediatric healthcare in our state is truly commendable.

Once again, we extend our warmest welcome to the West Bengal Pediatrics State Conference. May each interaction, discussion, and session during this event broaden our horizons, deepen our knowledge, and nurture lasting connections within our pediatric community.

Let us embark on this incredible journey together, with the shared vision of providing the highest standards of care, ensuring a healthier, happier future for the children of West Bengal.

With great anticipation,

Dr. Asok Kumar Datta
President Elect 2024
West Bengal Academy of Pediatrics

42 WB STATE PEDICON

Message

Dr Swapan Kr Ray, Scientific Chairperson, WBAP

Greetings from scientific Committee of 42nd West Bengal State Pedicon .

The long cherished 42nd State Pedicon will be taking place from 8th December 2023 to 10th December 2023.The pre-conference workshops will take place on 8th December in different venue. It's my proud privilege to share with you that 10 workshops will be running simultaneously which is probably first time in WB State Pedicon.Thetwo day conference will be studded with brain storming yet relevant topics which will be delivered by stalwarts in the field of academy as well as young and dynamic brigade.

I can assure you that you would enjoy this academic bonanza . I must thank my whole team of Scientific committee for tailoring the programme which will quench your academic thirst.The whole team worked very hard to make this scientific programme a fruitful one.

Looking forward for your active participation and constructive criticism.

Long live IAP

Long live WBAP

Dr.(Prof) Swapan Kumar Ray
Scientic chairperson ,42nd WB State Pedicon
Scientific Chairperson 2023 of WBAP

42 WB STATE PEDICON

INDIAN ACADEMY OF PEDIATRICS

West Bengal Academy of Pediatrics

ARTICLE

Unexpected Ghost in Disguise

Dr Anindita Mondal (Senior Resident),*
Dr SomenathGorain (Consultant and PICU In-charge),*
Dr Sumantra Raut (Consultant and Pediatric Nephrologist)*
*Neotia Bhagirathi Women and Child Care Center, Newtown, Kolkata
Dr Kaushik Maulik (Consultant PICU)**
Dr Prabhas Prasun Giri (Consultant PICU)**
**ICH, Kolkata

An 8 years old boy VB admitted in our tertiary care Institute with complaints of sudden onset severe respiratory distress while having his lunch. Suspecting a foreign body aspiration,a chest X-ray and related routine blood investigations were done at admission and child was put on mechanical ventilation. CXR suggested right upper zone opacity (collapse/ consolidation). Rigid bronchoscopy done on that eveningandfood particles with mucous plug were removed. Patient was continued with Injmeropenem and Injteicoplanin suspecting secondary sepsis. Post procedural mechanical ventilation was continued. Physiotherapy and frequent suctioning were done for removal of profuse secretion. After 48 hours, patient was weaned off ventilation and kept on CPAP mode and later to HFNC and CXR showed partial clearance of right upper zone. Within 24 hours of extubationpatient had sudden episode of desaturation hence reintubated and kept on VC_AC mode of ventilation. CXR worsenedand CT Chest showed right sided new patch. Flexible bronchoscopy was done due to the worsening status and once more mucous plug was removed. Gram stain of BAL fluid suggestive of >25 pus cell/HPF and culture suggestive of*Stenotrophonomusmaltophilia* (an aerobic multidrug-resistant gram-negative bacillus causing opportunistic infection). Injlevofloxacin was started as per sensitivity pattern. Gradually patient was extubated and kept on HFNC.Gradually oxygen support was weaned off. Patient noticed to have palatal weakness and drooling of saliva and decreased single breath count.Keeping history of aspiration twice in a stable child and such drooling and persistent bulbar weakness nerve conduction study was done which revealedGullian Barre Syndrome (pharyngo-bulbar variety) with sparing of all 4 limbs. Patient was managed with IV immunoglobulin accordingly and finally discharged after one and half months of hospital stay with minimal residual weakness. So underlying neurological abnormality to be kept in mind while treating aspiration in stable child.

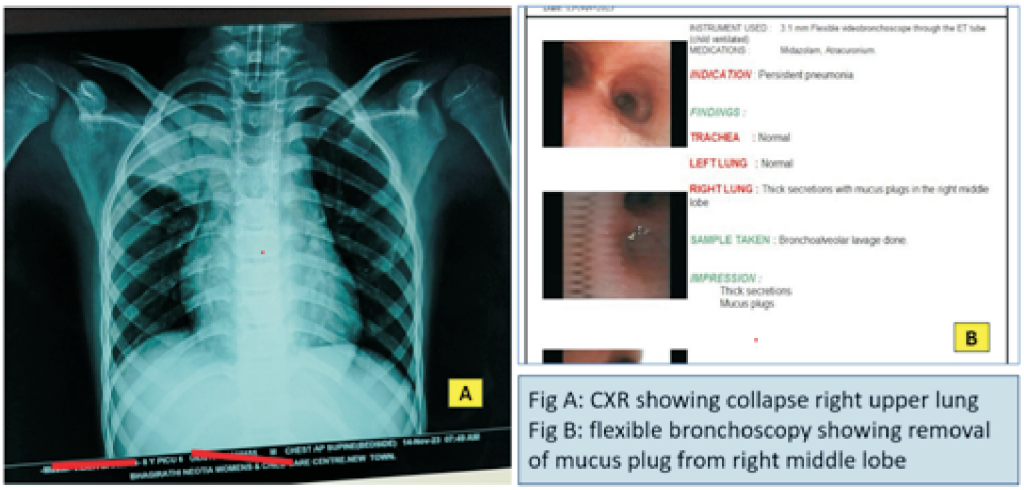

Fig A: CXR showing collapse right upper lung
Fig B: flexible bronchoscopy showing removal of mucus plug from right middle lobe

Overview of Paediatric Sleep

DR GAUTAM GHOSH (MD DCH FIAP Fellow IAPRC)

Human being sleeps one third of his life time BUT BRAIN NEVER SLEEPS

Sleep and wakefulness depends on day-to-day synchronisation of human to its environment by the interaction of a circadian (C) and a homeostatic process (S).

Circadian rhythms are controlled by suprachiasmatic nucleus (SCN) of the hypothalamus. It controls the sleep–wake cycle, modulates physical activity and food consumption, and, regulates body temperature, heart rate, muscle tone and hormone secretion.

The main influence of the SCN on sleep is due to a series of relays through the dorso-medial nucleus of the hypothalamus, which signals to the sleep–wake systems to coordinate their activity with day–night cycles.

There are two types of sleep state, NREM and REM sleep.

NREM sleep is conventionally divided into three or four stages,

The physiological mechanisms of circadian rhythm begin when light strikes special cells within the retina, ----they secretemelatonin, ---- suprachiasmatic nucleus (SCN) ---- signal the pineal body---- stop secreting melatonin, (highest levels during sleep). Day progresses----adenosine accumulates in brain and melatoninfalls ---- arousal continue. Melatonin (the sleep hormone) start picking up at 8pm gets pick at 3 am and ends at 7am).

Overall, hypnotics increase total sleep time, decrease sleep latency, decrease the number of awakenings, decrease the amount of time spent in NREM sleep stage 3 and, in some cases, REM sleep.

Acetylcholine is located in the pontine tegmentum and is involved in REM sleep generation.

NREM sleep constitutes about 75–80% of the total time spent asleep and REM sleep constitutes the remaining 20–25%. REM sleep follows NREM . these alternate multiple times through the night with increasingly longer and deeper REM periods occurring toward morning.

Stage 1 sleep is a very light stage of sleep with a low arousal threshold.. It generally lasts for <,10 min, constituting 2–5% of total sleep, and is easily interrupted by a disruptive noise. Electroencephalography (EEG) is characterised by low voltage, mixedfrequency activity (4–7 Hz).

Stage 2 sleep lasts approximately 10–25 min in the initial cycle and lengthens with each successive cycle, The EEG during shows relatively low-voltage, mixed frequency activity characterised by the presence of sleep spindles and K-complexes.

stage 3 sleep (SWS), the EEG is synchronised. Stage 3 lasts approximately 20–40 min in the first cycle and makes up about 14–32% of sleep. This stage is characterised by increased amounts of highvoltage, slow-wave activity on the EEG. d-wave (slow wave) activity is defined as waves slower than 2 Hz (.>0.5 s duration) with a peak-to-peak amplitude >.75 mV.

REM sleep is defined by the presence of desynchronised (low-voltage, mixedfrequency) brain wave activity, muscleatonia and bursts of REMs. ‘‘Sawtooth’’ wave forms, h-wave activity (3–7 Hz) and slow a-wave activity also characterise REM sleep.

REM sleep in infants represents a larger percentage of the total sleep (newborn to 3 months, 50%; by 3–5 months, 40%; by the end of the first year, 30% of total sleep time). After 3 months, NREM sleep begins to dominate.

This AASM(AMERICAN ACADEMY OF SLEEP MEDICINE) classifies sleep disorders into eight major categories:
1. insomnia,
2. sleep-related breathing disorders,
3. hypersomnias of central origin,
4. circadian rhythm sleep disorders,
5. parasomnias,
6. sleep-related movement disorders,
7. isolated symptoms and normal variants,
8. other sleep disorders.

How much sleep should children get at different ages? (possibly)

Age (in hours)	Minimum sleep*	Recommended sleep *range	Usual number of naps**
0–3 months	11	14–17	3
4–11 months	10	12–15	2
1–2 years	9	11–14	1
3–5 years	8	10–13	50% nil
6–13 years	7	9–11	40% once
14–17years	7	8-10	NIL

Establishing a Sleep Routine

Same routine every day (including holidays). This could include:

Avoiding TV/computer/video games 1 hour before sleep time/ Read/tell a bed-time story / avoid noise or use earplugs / warm bath in summer/ Avoiding chocolate, caffeinated, or sugary drinks / may use warm milk.

Promoting Sleep Settling in Babies

Babies need to settle to sleep by themselves and parents can help.

0–6 months: The baby can be held in arms until they fall asleep. When putting down in cot, caregiver may use a soothing voice or gentle stroking. Second option is to place baby in cot when calm and drowsy and gently stroke till they fall asleep comforting them with soft sounds.

6 months to 2 years: Controlled comforting— mother leaves the baby before he is asleep and waits outside the room. She comes back if the baby cries after a brief time (2–4 minutes) and talks to or pats child without picking him/her up and again leaves as soon as child is quiet and before he/she falls asleep.

What is safe sleeping and why is it important?

All babies should be put to sleep on their backs but let them find their own sleep position,

1) Promoting breastfeeding reduces the risk of SUDI by more than half.

2) Room sharing but not bed sharing with parents or siblings for first 6–12 months.

Swaddling the baby is fine. Keep baby's head and face uncovered.Discourage smoking

What are behavioral sleep problems? What strategies can I use to prevent or manage them?

Common Types

1) Sleep-onset association disorder: Falls asleep readily, if person (parent) or object (TV) is there. In the absence of the parent or object, child struggles to get to sleep. Typically, wakes 1–4 times per night, again wanting parent there or TV turned back on in order to resettle to sleep

Management ;

1. Checking method: You settle your child, leave the room for 1–2 minutes, and promise to return after this time. Gradually, increase the time spent outside the child's room. Eventually, you return to find that your child has fallen asleep.

2. Camping out method: Place a bed or chair next to the child's bed. For the first few nights, you pat child to sleep. After a few nights, sit next to bed/ cot but do not touch the child. Gradually, move the chair/bed away from child over a period of 7–10 nights. When the child wakes overnight, you must return to the bedroom and sit on the chair/bed until the child falls asleep again.

2) Limit-setting disorder: Child comes in and out of the room multiple times before falling asleep. Multiple requests to parents ("I want a drink, I want to go to the toilet, I want to talk to you, I am scared...") to avoid/delay going to bed. Parents find it difficult to set limits around these behaviors, known as "curtain calls".

Management

Limit child to 1–2 requests at the start of the night. The use of the "bed-time pass" method can help this. The child gets one pass to use during the night and after this is used up, he/she needs to stay in the room and go to sleep.

Causes of sleep deprivation in children:

1) Medical : sleep disturbed breathing (OSAS)/ Parasomnia / movement disorder / central hyposomnia(neurochallenged/ structural anomaly) / Cicardian rhythm disorder / anxiety

2) Non-mediacl :Behavioral disorder / Environment (noise/light/distraction) / drugs

What is sedentary behavior? How much sedentary behavior is OK for children?

Sedentary behavior includes sitting and lying down but not sleeping.. Quality sedentary behaviors, such as storytelling, reading, and solving puzzles, support healthier growth and development.

<2 years of age: Child should not be using electronic media.

2–5 years: Sitting and watching TV/iPad to be limited <1 hour/ day.

<5 years: Child to be active and not sedentary for >1 hour at a time unless asleep.

5–17 years: Minimize sedentary time. Avoid long periods of sitting. Use of electronic items, iPad, TV, computers, etc. for entertainment to be limited to a maximum of 2 hours a day.

What are the benefits of physical activity to my child's health?

It helps children to have a fit and healthy life with good physical and mental well-being and healthy heart and lungs, bones, muscles, and joints. / develop muscle strength, coordination, and control. / reduces chance of getting chronic diseases such as type 2 diabetes, hypertension, and obesity. Enhances development of motor, cognitive, and social skills and sleep is better./ psychological advantages include improved mood, better outlook, positive self-esteem, team cooperation, and a good life.

What is the recommended time and types of physical activities for my child according to age?

Children need to be as active as possible all day in a safe and supervised environment.

Birth to 1 year: At least supervised 30 minutes of tummy time when awake .(Reaching, grasping, pulling, pushing, moving their head, body, and limbs, and crawling)

1–2 years: At least 3 hours (180 minutes)

3–5 years: At least 3 hours (180 minutes) with at least 60 minutes of moderate-to-vigorous physical activity

standing up, moving around, rolling, and playing
skipping, hopping, dancing, running, jumping, climbing a frame, chasing games and ball games in group play, and swimming.

5–18 years: 3 hours of structured physical activity

aerobic exercises and exercises to strengthen the muscles and bones (, balancing, counter-balancing, swinging on playground equipment bars, sit-ups, press-ups, basketball, dance, football, rugby, tennis, gymnastics, rock climbing, etc.)

Screen time recommendation (IAP)

< 2 YRS : NO
2-5 YR : 1 HR (supervised)
5-10yrs ; 2hrs
>.10yrs : no time recommendation (but outdoor and group/ family activities a must).

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Dr. Ghosh's Whimsical Clinic: The Marvel of West Bengal

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In a quaint village nestled among the lush green rice fields of rural West Bengal, there resided a child specialist whose fame had transcended the usual medical circles. Dr. Bidhan Ghosh, with his twinkling eyes and ever-present smile, was more of a magician than a mere pediatrician.

His clinic, a vibrantly painted hut, stood out like a beacon of joy amidst the rustic landscape. The walls, adorned with a medley of comic strips, funny caricatures, and bright murals depicting folklore heroes, welcomed visitors into a world where medicine met mirth.

Chapter 1: The Sweet-Toothed Conundrum
On a particularly hot and buzzing summer afternoon, a frazzled mother, Mrs. Banerjee, trudged into Dr. Ghosh's clinic, towing her plump, sulking son, Nikhil. The boy had declared a boycott on all food groups barring sweets, leaving his mother at her wit's end.

Dr. Ghosh, upon hearing this, stroked his mustache thoughtfully and then, with a sudden sparkle in his eye, rummaged through his cupboard. He produced a brightly colored box labeled "Chandramukhi Sabzi" (Moon Vegetables). He spun a fantastical tale of how these were special vegetables grown on the moon, endowed with the power to make one smarter, faster, and stronger.

Nikhil's eyes grew wide with wonder. He tentatively tasted a piece of the disguised carrot, and then, convinced of its lunar origin, devoured the entire box. Mrs. Banerjee's eyes filled with grateful tears as she watched her son munching on vegetables.

Chapter 2: The Puppet's Brave Tale
The legend of Dr. Ghosh's miraculous methods began to spread like wildfire. However, a real challenge presented itself with little Ananya, a girl so petrified of injections that she could sense a syringe from a mile away.

On the day of Ananya's dreaded vaccination, Dr. Ghosh prepared a puppet theater. As Ananya entered, she was greeted by the sight of colorful puppets dancing on a makeshift stage. The story unfolded - a brave puppet warrior, facing a daunting challenge, needed a "magic shield injection" to gain strength.

Mesmerized, Ananya watched, her fear forgotten. When the time came for her shot, Dr. Ghosh, with a sleight of hand only he could master, administered the injection, all the while narrating the climax of the puppet's brave adventure. Ananya left the clinic not only vaccinated but also longing for the next chapter of the puppet's journey.

Chapter 3: The Wonderland Clinic
Dr. Ghosh's clinic became a local sensation, transforming from a mere medical establishment into a realm of wonder. The waiting room was perpetually filled with laughter and chatter, as children played with toys, read books, and shared stories of the doctor's magical cures.

Even the adults in the village began to see Dr. Ghosh's clinic as a beacon of happiness. Parents no longer had to drag their children for check-ups; instead, kids would remind their parents when it was time to visit Dr. Ghosh.

Chapter 4: The Journalist's Discovery
The turning point came when a journalist from Kolkata, intrigued by the stories, decided to visit the village. What he witnessed there led to a heartwarming feature article titled "Dr. Ghosh's Clinic: The Wonderland of West Bengal." He narrated the delightful blend of folklore, humor, and medicine that Dr. Ghosh employed, painting a vivid picture of the clinic's joyful atmosphere.

Following the article's publication, Dr. Ghosh's fame soared beyond the confines of the village. People from neighboring towns and even distant cities began to flock to his clinic, eager to witness the doctor's unique approach to pediatric care.

Epilogue: Legacy of Laughter
Years passed, and Dr. Ghosh became a legend in West Bengal. His approach to medicine, infused with humor and compassion, not only healed children but also left an indelible mark on the community. His belief that laughter was indeed the best medicine became a philosophy that many aspired to emulate.

Dr. Ghosh's Whimsical Clinic remained a testament to the power of joy in healing. It stood as a reminder that sometimes, the most effective medicine doesn't come from a bottle, but from the heart.

Advances in Congenital Cardiac Surgeries: A Decade of Innovations and Improved Outcomes

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Over the past decade, significant advancements in congenital cardiac surgeries have been made, focusing on technology, imaging, surgical techniques, and patient care. These innovations have revolutionized the field, offering new hope and improved outcomes for patients with congenital heart defects (CHDs).

Advancements in imaging and diagnostic capabilities have led to better identification of specific heart defects, enabling timely and targeted surgical interventions. 3D modeling has significantly aided preoperative planning, especially for patients with complex lesions or multiple previous repairs. Virtual reality technology is emerging as a valuable tool in both preoperative planning and education, offering a deeper understanding of congenital heart defects (1)

Improved perfusion and surgical techniquesin infant aortic arch repair have also seen significant improvements, reducing risks such as bleeding, renal dysfunction, and neurologic injury (2). The integration of surgery and interventional cardiology has been a hallmark of recent advancements, with transcatheter interventions now used in hybrid procedures. Refinements in cardiopulmonary bypass machines and the development of smaller ventricular assist devices suitable for children and infants represent significant technological advancements (1).

Fetal cardiac interventions have also been enabled for certain types of CHD that worsen during gestation, potentially halting or slowing the progression of the defect, improving the prognosis for the baby after birth. The use of large data sets and artificial intelligence (AI) is becoming increasingly important in congenital heart surgery, with advances in patient monitoring leading to better perioperative care based on patient-specific data (1).

Recent years have seen significant advances in pediatric heart transplantation. The advancements have led to improved long-term survival rates, from 70.7% to 83%, attributed to immunosuppression strategies, ventricular support, donor heart preservation, and multidisciplinary decision-making involving multiple specialties (3).

Advances in the individual congenital cardiac surgeries.

Biventricular Repairs

Tetralogy of Fallot (ToF):

Recent studies in ToF have focused on long-term consequences of pulmonary regurgitation, a common outcome of right ventricular outflow tract reconstruction. Although survival rates after ToF repair are high (over 95-97% in infants), right ventricle (RV) dilation due to pulmonary regurgitation can lead to serious long-term issues such as biventricular dysfunction, heart failure symptoms, arrhythmias, and sudden death (4, 5). The timing for pulmonary valve replacement (PVR) in asymptomatic patients remains a clinical challenge, and advancements in assessing biventricular function and functional capacity are critical in making these decisions. Tricuspid regurgitation in patients with repaired ToF is associated with a greater incidence of atrial tachyarrhythmias, but the criteria for tricuspid valve intervention at the time of PVR are not yet clear (5).

Ventricular Septal Defects (VSDs):

In VSDs, the indication for closure generally involves moderate to large defects with specific physiological changes. Surgical closure is recommended for large perimembranous VSDs, supracristal VSDs, and VSDs with aortic valve prolapse. Large muscular VSDs may be closed using percutaneous techniques. Currently, the Amplatzer Muscular VSD Occluder is the only FDA-approved device for VSD occlusion (6). A comparative study between surgical closure and transcatheter closure of VSDs showed that both methods are effective. However, the transcatheter approach has advantages in terms of avoiding sternotomy scar, blood loss and transfusion, and hospital stay. It's noteworthy that transcatheter intervention is limited to anatomically suitable VSDs, and surgical backup is necessary in case of complications, making surgery the recommended approach for most VSDs (7).

Atrioventricular Septal Defects (AVSDs):

Double-Patch Technique and Long-Term Outcomes: A study over a 21-year period showed that the double-patch technique for surgical AVSD correction results in good early postoperative outcomes and low long-term reoperation rates. This technique has become a safe and effective procedure for AVSD repair (4). The management strategy for unbalanced AVSDs is complex and may involve staged single-ventricle palliation. Recent data suggest that achieving two-ventricle repair might be preferable in patients with suitable anatomy (8).

Arterial Switch Operation (ASO):

ASO is the procedure of choice for transposition of great arteries (TGA) and double outlet right ventricle with subpulmonary VSD (Taussig–Bing anomaly, TBA). The surgical techniques and perioperative management of ASO have seen steady improvements, resulting in significantly reduced mortality rates. However, anatomic variations of the coronary artery, combined arch anomalies, low birth weight, and age presentation over 4 weeks are still considered risk factors (9).A retrospective study covering 43 years of experience with ASO for transposition of the great arteries (TGA) identified significant long-term clinical outcomes. While good outcomes are typical, reoperations and interventions remain necessary for some patients. Risk factors for reoperations included TGA morphological subtype, aortic arch repair associated with ASO, and non-usual coronary artery anatomy. Catheter interventions were mainly performed for relief of supravalvular pulmonary stenosis or arch obstruction (10).

Total Anomalous Pulmonary Venous Connection (TAPVC):

Surgical correction of TAPVC remains challenging, with pulmonary venous obstruction (PVO) being a major complication and a common cause for reoperation. Sutureless repair, introduced in the 1990s to relieve PVO after TAPVC repair, has expanded its indications to include infants with preoperative PVO or those at risk of developing PVO postoperatively. While early and mid-term outcomes of primary sutureless repair are favorable, long-term outcomes and effects on atrial function are still being studied. This technique may be best indicated for high-risk infants, such as those with TAPVC associated with single-ventricular physiology, mixed-type TAPVC, or small PV confluence (11).

Palliative Procedures

BT Shunt (Blalock-Taussig Shunt): Involves connecting the systemic arterial circulation to the pulmonary arteries, typically by connecting a subclavian artery branch to a pulmonary artery.

Recent Advancements:

Mortality and Risk Factors: Recent retrospective studies have assessed mortality rates and risk factors for adverse outcomes in patients undergoing the mBTT shunt. These studies have found results comparable to previous reports for both univentricular and biventricular groups, indicating a consistency in outcomes over time (12).

Shunt/Body Weight Ratio and Complications: Research has identified that a shunt/body weight ratio greater than 1.3 is significantly associated with the incidence of shunt thrombosis. This finding is crucial for patient selection and surgical planning to minimize complications (13)

Risk Stratification in Neonates: Recent studies have emphasized the high mortality and morbidity associated with the procedure in neonates and patients with over-shunting, indicating the need for protocol-based management tailored to these high-risk groups (14)

Hybrid procedures: Hybrid procedures for single ventricle congenital heart diseases combine surgical and catheter-based interventions, primarily used for high-risk patients undergoing traditional surgeries like the Norwood procedure.

Patient Selection and Mortality Reduction: Recent studies have focused on refining patient selection criteria to identify those who would benefit most from hybrid procedures, significantly impacting early mortality rates (15, 16).

Norwood Procedure: complex surgery for newborns with hypoplastic left heart syndrome, reconstructing the heart and major blood vessels for optimal blood flow to lungs and rest of the body.

Recent Advancements:

Improved Survival Rates: Although early outcomes have plateaued, there have been significant reductions in operative mortality since the procedure's introduction.

Surgical and Perioperative Care Enhancements: Advancements in surgical techniques, perioperative care, and myocardial protection have contributed to the improved survival rates.

New Approaches and Modifications: Traditionally, surgeons stopped the heart and cooled the body's organs to slow blood flow during surgery. But Duke pediatric heart surgeons developed a way to perform the operation while the heart continues to pump. This allows the heart, brain, and other vital organs to continue receiving blood flow, which lowers the chance of organ malfunction and increases the odds of survival from an average of less than 88% to more than 97%, according to the Society of Thoracic Surgeons. (17, 18, 19)

Glenn Procedure: Heart surgery for congenital heart defects involves redirecting venous blood from the upper body to the pulmonary arteries, bypassing the heart.

Recent Advancements:

Surgical Techniques: These procedures, being integral to Fontan completion, have been refined to create superior cavopulmonary anastomosis more effectively. Surgeons have focused on minimizing complications while ensuring efficient blood flow between the upper body and the lungs (20)

Complicated Glenn Procedure: A study defined a complicated Glenn procedure (cGP) as one involving post-operative death, heart transplant, extracorporeal life support, Glenn takedown, or prolonged ventilation. Identifying these risk factors is crucial for preoperative planning and patient counselling (21)

Fontan Procedure: Final palliation in a series of three, to treat single functional ventricle, directing venous blood of lower part of the body to the pulmonary arteries.

Recent Advancements:

Palliative Treatment for Single Ventricle Congenital Heart Disease: The Fontan procedure has been pivotal in treating patients with functionally single ventricles, marking a significant turn in the treatment and prognosis of complex congenital heart diseases (22).

Survival data: Advances in surgical techniques have significantly improved patients' overall survival after the Fontan procedure (23). Retrospective studies have shown varying survival rates at different postoperative years, with significantly higher survival in later surgical eras. The current era has seen excellent short-term and medium-term outcomes, with operative mortality approaching 1% and high transplantation-free survival rates at 5 and 10 years (24).

The last decade has seen remarkable advancements in congenital cardiac surgeries, driven by innovations in surgical techniques, imaging technologies, AI, 3D printing, and comprehensive approaches to heart transplantation. These developments are significantly improving the prognosis and quality of life for children with congenital heart defects.

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Patent Ductus Arteriosus (PDA) with Persistent Pulmonary Hypertension of the Newborn (PPHN)- the eternal debate of which one to treat first?

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Abstract: The management of patent ductus arteriosus (PDA) and persistent pulmonary hypertension of the newborn (PPHN) is a critical aspect of neonatal care. Both conditions can have significant implications for respiratory and cardiovascular function in newborns. This article aims to explore the question of which condition to treat first when faced with a case of coexisting PDA and PPHN. The decision-making process should consider the severity, potential complications, and individual characteristics of the neonate. Understanding the underlying pathophysiology and available treatment options is essential to optimize patient outcomes.

Introduction: Patent ductus arteriosus (PDA) and persistent pulmonary hypertension of the newborn (PPHN) are two distinct conditions that can occur concurrently in neonates. PDA refers to the failure of the ductus arteriosus to close after birth, resulting in abnormal blood flow between the heart and lungs. PPHN, on the other hand, is mostly characterized by elevated pulmonary vascular resistance, leading to impaired oxygenation and altered circulatory dynamics. When faced with a case involving both PDA and PPHN, deciding which condition to treat first is a crucial clinical challenge.

Considerations for Treatment Prioritization:

1. Severity and Clinical Presentation: The severity of each condition should be assessed individually. If the PDA is causing significant hemodynamic compromise and exacerbating the respiratory distress associated with PPHN, addressing the PDA may take precedence. Conversely, if PPHN is severe and causing profound hypoxia and cardiovascular instability, immediate intervention to alleviate pulmonary hypertension might be warranted.
2. Underlying Pathophysiology: Understanding the pathophysiological mechanisms underlying PDA and PPHN is crucial in determining treatment priorities. In cases where PDA contributes to PPHN, closure of the ductus arteriosus may lead to improved pulmonary blood flow and subsequent resolution of PPHN. However, in instances where PPHN is the primary driver of respiratory distress, interventions targeting pulmonary vasodilation may be necessary before considering PDA closure.
3. If a neonate has a Hs PDA with excessive flow induced PPHN, starting a pulmonary vasodilator can rapidly worsen the clinical situation by increasing further pulmonary blood flow and worsening PPHN. However if the baby has primarily Pulmonary Flow restricted resistant mediated PPHN closing the PDA by medication can lead to Right Heart Failure as PDA acts as a pop off valve in severe PPHN protecting Rt heart from high Pulmonary pressure induced failure.
4. Individual Patient Factors: The unique characteristics of each neonate, including gestational age, birth weight, and overall clinical stability is crucial to individualize treatment plans.

So in combined situation of PDA & PPHN which one to treat first depends on Which type of PPHN we are dealing with:- PDA driven PPHN or PDA supportive PPHN ?

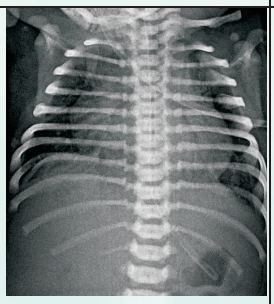
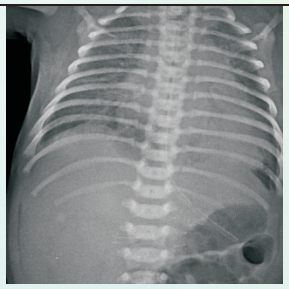
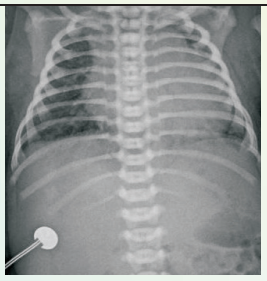
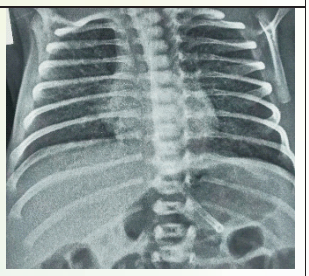
So we need to differentiate between PDA driven PPHN vs PDA supportive PPHN

ECHO Parameters

	PDA driven PPHN	PDA supportive PPHN
Definition	PDA is mostly (Lt to Right) and excessive flow in the pulmonary artery causing increased resistance in PA leading to PPHN.	PDA is mostly (Right to Lt) and PDA helps in bypassing excessive resistance faced by Right ventricle and PDA acts as a pop off valve.
Clinical background -	Generally presents after few days to wks.	Usually presents in 1st few days of life.
Respiratory parameter-	Respiratory distress >> cyanosis FiO2 requirement < 50% Crepitations +	Cyanosis >> Respiratory distress (in case of primary PPHN) FiO2 requirement >50 %
Features of RV failure	-Absent	Present (Hepatomegaly, features of RA & RV dilation in ECG & CXR)
CXR	Generallyfeatures of pulmonary oedema seen on CXR	Generally black lung with decreased pulmonary vascularity (Primary PPHN)
Response to Pul-vasodialator	Worsening of Respiratory distress	Improvement of Respiratory distress
The clinical and radiological clues need to be confirmed by **ECHO** findings		
Shape of both ventricles	Dilated RV & LV, Septal flattening in diastole	Dilated RV, Septal flattening in systole,
PDA shunt (Rt-Lt component)	<10 %	>10%
Volume status of both ventricles	Left heart volume loading (PVd =0.5 m/s, MVE =0.8 m/s, IVRT =40 ms) LVO =1.5 RVO Left-Right atrial shunt Diastolic flow reversal dAo	Right heart volume loading Normal/low LVO Right-Left atrial shunt Forward dAo diastolic flow
RV function	Normal	Abnormal
Evolution	Serial evidence of increase in volume of Left-Right shunt if not treated	Serial evidence of increase in volumeRight-Left shunt if not treated

Abbreviations: PVd, pulmonary vein D wave velocity; MVE, mitral valve E wave velocity; IVRT, isovolumetric relaxation time; LVO, left ventricular output; RVO,right ventricularoutput; dAo, descending, post-ductal thoracic aorta

Applying the above approach and ECHO evaluation we have systematically treated these patients successfully and presenting a short case series of these patients.

	Case 1	Case 2	Case 3	Case 4
GA,Bwt	37 wk, 3.522 kg	37 wk5 day , 2.870 kg	36 wk, 3.4 Kg, LGA	32 wk,1.2 kg ,SGA
Antenatal RF-	GDM, MSL	GDM, PIH	GDM ,	PT-PROM,Oligohydramnios
Presentation -	Admitted on DOL-1,with Sp02 at admission 67% on NPO2(2lt/min) RD score(Downe) 5/10	Admitted on DOL 1with RD Score 4/10 & recurrent hypoglycemia. SPO2 90 % in NPO2 (2lt/min)	Admitted on DOL4, Spo2 -90% with NPO2- 2lt/min Baby was outside treated with Sildenafil for PPHN	Admitted on dol3 with Resp distress & shock Spo2 80% in npo2 at admission Baby was treated with pcm from outside
Clinical findings	Crepts+, RD score -4/10 On cpap SpO2 -92% Bounding pulse , hepatomegaly Flushed CRT	Crepts +, RD score 4/10 On CPAP spo2 – 94% Bounding pulse , hepatomegaly Flushed CRT	Crepts+,RD score- 5/10, On HFNC spo2 -94-95% Bounding pulse , hepatomegaly Flushed CRT	RD-2/10,B/L air entry – WNL On NIV (PEEP- 6,PIP-22,FiO2-60%) spo2 -92% Pulse vol low, CRT >3 sec
Initial Resp support -	CPAP(PEEP-6.5/Fio2-60 %)	CPAP (PEEP-6/FiO2-30%)	HFNC (5L/m, fio2- 50%)	NIV (PEEP- 6,PIP-22,FiO2-60%)
CXR -	 Cardiomegaly & plethoric lung field & hepatomegaly	 Cardiomegaly & plethoric lung field& hepatomegaly	 Cardiomegaly & plethoric lung field& hepatomegaly	 no cardiomegaly with mild oligemic lung field .
VBG-	**1st day** –pH-7.32. Pco2 -38 PaO2-57.8, lac- 4.8, HCO3-19.6 **3rd day** - pH-7.43. Pco2 -34.9 PaO2-48.9, lac-4.1, HCO3-24	**1st day** –pH-7.25. Pco2 -58.6 PaO2-31.7, lac-2.6, HCO3-21.2 **2nd day** - pH-7.36. Pco2 -32.1 PaO2-56, lac-2.4, HCO3-20.	**1st day** –pH-7.49. Pco2 -48.6 PaO2-45.7, lac-7.8, HCO3-33.2 **3rd day** - pH-7.52. Pco2 -34.1 PaO2-56, lac-3.1, HCO3-30.	**1st day** –pH-7.09. Pco2 -50 PaO2-27.7, lac-6.8, HCO3-16.2 **3rd day** - pH-7.32. Pco2 -39.1 PaO2-43, lac-3.1, HCO3-20.
ECHO findings	1st day -IVC full (9mm) TR-40 mm of Hg.MR- 43mmof Hg LVO-250ml/kg/min RVO-280ml/kg/min Pfo- lt to rt ,PVd – 0.8 m/s MV e - 0.88m/s , LPA edv- 0.7m/s PDA 4.4 mm (flow bidirectional predominantly LT to RT > 80 %) LA:Ao -1.8 (**Flow driven PPHN**)	1st day -septal flattening in diastole TR-45 mm of Hg. MR-minimal LVO-180ml/kg/min RVO-210ml/kg/min Pfo- lt to rt ,PVd – 0.6 m/s MV e - 0.8m/s , LPA edv- 0.35m/s PDA-3 mm (flow bidirectional predominantly LT to RT > 80 %) **(Flow driven PPHN)**	1st day -septal flattening in diastole TR-40 mm of Hg. MR-60 mm of hg, LVO-160ml/kg/min RVO-210ml/kg/min with PA flow turbulence during crying IVS -11 mm (asymmetric septal diameter) Pfo- lt to rt ,PVd – 0.65 m/s MV e - 0.9m/s , LPA edv- 0.45m/s PDA-4.5mm (LT to RT > 80 %) **(Flow driven PPHN)**	1st day -septal flattening in systole TR-50 mm of Hg. MR-minimal, LVO-80ml/kg/min RVO-90ml/kg/min PAAT: RVET< 0.2 Pfo-bidirectional ,PVd- 0.15 m/sMV e - 0.3m/s , LPA edv- 0.15m/s PDA-2.5mm (RT to LT>50 %) ***TAPSE-5mm, RA & RV – dilated*** **(PDA supportive PPHN)**

Conclusion:

The debate of which condition to treat first in cases of coexisting PDA and PPHN is complex and multifaceted. The decision-making process requires a comprehensive evaluation of the severity, underlying pathophysiology, potential complications, and individual patient factors. There is no definitive answer as the optimal treatment order may vary based on the unique circumstances of each case. A multidisciplinary approach, evidence-based guidelines, and ongoing research are necessary to refine treatment strategies and improve outcomes for neonates affected by PDA and PPHN.

KOLKATA CALLING.

Dr Debjani Gupta

Flawed and messy but resplendent with the gentlest of dawn breaks, picturesque sunsets, the golden godhuli and the songs for the moon in all it's splendour.

So steeped in the glory of it's history and heritage that it stumbles back and forth in it's present while presenting a picture of quiet confidence about its distant future.

SHOB THEEK HOYE JABE(everything will work out in the end) - the reassuring phrase was probably born here. The sheer positivity of this simple statement makes you believe that all mountains can be crossed all oceans can be traversed all troubles can taken care of

HYAN DEKCHI(let me see what I can do!!) - A slower pace of life which at the best of times is a soothing comfort and at the worst of times it is a frustrating irritant...this is something that one acclimatises to sometimes grudgingly sometimes with a smile .

ADDA - the word was conjured just for the people of this city!!

Gathering of friends which debates, discusses and solves All issues and problems that abound the earth over a cup of tea with complete disregard to the ticking of the clock.

They have all the solutions to all maladies and go back home refreshed and rejuvenated. The Sunday Adda over a cup of tea is what many get nostalgic about.

Of course as with most things , there are lots about the city one can moan and groan about. In spite of all its innumerable limitations it is A City With A Warm Soul, that you slowly recognise and learn to love and always want to come back to .

It grows upon you- takes time , but the roots dig deep.

Where on earth would you find ,

-the sweet Tala water, without which the thirst is not quenched.

-the zing and tang of street food, that make the eyes nose and the taste buds sing in unison.

-the mouth watering seasonal Nolen gur sandesh and Rosogolla, that get transported the whole wide world over.

-the exquisite cuisine with it's recipes zealously guarded and handed down the generations

-the 5 days of celebration of joyous faith as the clan comes together during Durga Puja time and stays over for Lakhi puja, Bhai Phota and Diwali. A time when aesthetic Art reaches its zenith and traditions get revisited.

-The Kolkata Winter when nature beautifies the city to welcome the migratory birds, the NRIs with roots here, the passionate readers at the Book fair and divine musical concerts set to all the seasons and phases of life.

As a 16 yr old when I semi permanently landed here from the cooler gentler climes of picturesque Ranchi...the onslaught of the vendors and the all pervading smell of fish at the Howrah station (place of entry) every time made me want to hop on to the next train back home! Superimposed on this was arrival at a college hostel that had no fans at that time and age!!!!, journeying on the overcrowded buses or the trundling Trams or the yellow Ambassador cabs!!!

BUT, it was during that phase here, I made some friends for life. A handful of beautiful people who continue to stand with me today.

College introduced me to North Kolkata - the geography of the by lanes was bewildering to say the least.

It is much later that I learned to see between the layers-
the architectural wonder of the sleepy houses some of them centuries old, that coexisted comfortably with the highrises. It is only with time one understands the laughter and the stories of the "para " and the helpful spirit that abides here.

Over the last many decades my travelling shoes have crossed continents and oceans, stopped at picturesque countrysides and sprawling finest of cities and met people with varied thoughts and ways of living.

But in happiness and sorrow...in faith and despair...in my highs and lows there is no other place I would rather be.
KOLKATA IS NOT JUST A SPRAWLING METROPOLIS
Kolkata - is a way of living
Kolkata- is friends for all seasons
Kolkata- is family and home.

Close encounter with Dhole.

This is an Indian wild dog also known as Dhole. This picture was clicked my me at Pench National park, MP in the early morning. It was a late winter with early morning chill. Animal came out for Sun warming. It was only a meter away of my safari Jeep. They move in a big clan. They can attack any wild animal including tiger and leopard. Attack on human is rare. This female matriarch is the leader of her clan. They are very shy and elusive animal. Highly endangered due to habitat loss. Mostly encountered in forest of Central, Western and Southern India.

Dr. Subhasish Bhattacharyya
Professor and HOD, Pediatrics CSS. Kolkata.

পথ শেষে

ডাঃ সাইফুল সেখ
DR. SAIFUL SK.
IAP : S/37-2001

একটা সময় থমকাতেই হয়,
সময় তখন নিজেই থামতে চায় –
মন হয়তো তখনো চলতে চায়,
কোথাও যাবার নেই, কিন্তু ফেরার নেই –
বয়স জানিয়ে দেয়,
মন আর শরীরের টানাপোড়েন।
তবু জীবন সায়াহ্নে এসেও যারা –
না – সবকিছু অস্তমিত হয় নি এখনো –
ইচ্ছে – আশা – দুরাশা – নীল নির্জনতা,
সব আছে এখনো যে সতেজ সবিতা,
সাঁঝ বাতির রূপকথার আলোয়,
নীলকণ্ঠে- বিষ শোষণেও
জোনাকির আলো অফুরান,
বাঁশবাগানের মাথার উপর ওই যে চাঁদ,
এখনো যে শোলোক বলা কাজলা দিদি –
উঁকি মারে অবচেতন মনে –
সত্যি আরো ইচ্ছে করে শ্বাস নিতে –
উত্তম-সুচিত্রা, সন্ধ্যা-হেমন্তের অনুরণন
সদা কিছু টানে,
কফি পেয়ালা নিয়ে এখনো বসে বনলতা সেন,
তবু থামতে হয়, থেমে যেতে হয় –
এ তুমি কেমন তুমি –
শেষ পর্যন্ত থামিয়েই দিলে,
সহিসের ঘোড়াগুলি নির্বাক আজ আস্তাবলে,
রাত পাখিরা কণ্ঠহীন
নিঝুম শ্মশানে,
হয়ে রই অচল পয়সা
নিষ্ফলের হতাশের সনে।

ডাঃ সইফুল সেখ

বেনারসের বারোমাস্যা।

নীলাঞ্জন ঘোষ

বেনারস । জায়গাটার নাম শুনলেই মনের মধ্যে কত কি □ এক লহমায় ভেসে ওঠে ! মন্দির, সাধু,গঙ্গা, তীর্থ□াত্রীতে ভরা গঙ্গার ঘাট, 'অপরাজিত ' , সত্যজিৎ রায় ,কাশির গলি, পেঁড়া -রাবড়ি, কাঁচের চুড়ি- শাড়ীর চোখ ধাঁধানো পসরা আর বিষণ্ণ মনিকর্নিকা ঘাট। এত সব মিলেমিশে আমাদের 'বার্ধক্যের বেনারস'। হিন্দুদের বিশ্বাস , বেনারসে মৃত্যু হলে ও মনিকর্নিকা ঘাটে নশ্বর দেহ দাহ করলে আর ফিরতে হয় না □ন্ত্রণাময় এই ধরাধামে।মোক্ষলাভ ঘটে।

বেনারসের ইতিহাস আমার এই চিত্রকথা বা ফোটো ফিচারের বিষয় নয়। নির্মাণ করতে চেয়েছি আমার ক্যামেরার লেন্সের চোখে বেনারসের বারোমাস্যা । দিনের নানা সময়ে নানা মু□ের বেনারস।

বেনারসের ভোর আসে গঙ্গার ঘাটে সাধু সন্ন্যাসী ও পুণ্যার্থীদের সমাগমে । ভেসে আসে অবিরাম মন্ত্রোচ্চারণ আর ধর্ম সংগীতের আওয়াজ। দূর দুরান্ত থেকে ভেসে আসে মন্দিরের ঘন্টাধ্বনি। ধীরলয়ে জেগে ওঠে এ শহর , শুরু হয় লোক চলাচল। চায়ের দোকানের হাঁক□াক, হিঙ এর কচুরির খুশবু , সাইকেল রিকশার টুং টাং আওয়াজ , হঠাৎ হঠাৎ রাস্তা জুড়ে বৃষ মহারাজের পথ অবরোধ।

শুধু মন্দির দর্শনই নয়, গঙ্গার তীর বরাবর গড়ে ওঠা সুপ্রাচীন ঘাটগুলির সৌন্দর্য্য ও নির্মাণকৌশল, পতিতপাবন গঙ্গার অপার্থিব রূপ দেশবিদেশের লক্ষ লক্ষ মানুষকে বেনারসে টেনে আনে। একের পর এক ঘাট পায়ে হেঁটে অনুভব এক পরম অভিজ্ঞতা। জলপথে নৌকাবিহারে টইটম্বুর আনন্দ।

দেশি বিদেশি তথ্যচিত্রে কাশীর এই ঘাটগুলো বারবার ফিরে ফিরে আসে।এই পবিত্র ভূমির রোজনামচা স্বল্পপরিসরে শেষ করা সম্ভব নয়। অনেক আকর্ষণীয় অনুষ্ঠানকে পাশে সরিয়ে রেখে আজ আমি আমার ক্যামেরা নিয়ে চলে এলাম 'দেব দীপাবলি'র বেনারসে ।

ভ্রমণপিপাসু মানুষের কাছে 'দেব দীপাবলি' অপরিচিত নাম না হলেও, অনেকের কাছেই অজানা।

কার্তিক পূর্ণিমার পুণ্যতিথিতে , দীপাবলির ঠিক পনেরো দিন পরে বেনারস আবার সেজে ওঠে নবপরিণীতা বধূর মতো। শহরের প্রতিটি বাড়ি, মন্দির, সব গঙ্গার ঘাট , সন্ধ্যেবেলা মাটির প্রদীপের নরম, মোলায়েম , মায়াবী আলোয় বড় পবিত্র হয়ে ওঠে। কথিত আছে মহাদেব শিব নাকি এই কার্তিক পূর্ণিমার দিন অত্যাচারী ত্রিপুরাসুরকে বধ করেছিলেন। সেই জয়োৎসব সাড়ম্বরে পালন করার জন্যই এই 'দেব দীপাবলি'। সাধারণ মানুষ বিশ্বাস করেন আলোকোজ্জ্বল ধরণীতে এই তিথিতে রাতের বেলায় নেমে আসেন স্বর্গের দেবদেবীরা, পুণ্য গঙ্গায় অবগাহন স্নান করেন তাঁরা। সারা শহর ও গঙ্গার ঘাটকে সাজিয়ে তোলার পাশাপাশি গঙ্গায় স্নান, নানা ধরণের আতশবাজি প্রদর্শন, দেব দেবীর প্রতিমা নিয়ে শহরের পথে শোভাযাত্রা, গঙ্গায় প্রদীপ ভাসানো। □ কোনো চিত্রগ্রাহকের কাছে এ এক অমূল্য তিথি, অনন্য ক্যানভাস।

পাঁচদিনব্যাপী অনুষ্ঠান শুরু হয় 'প্রবোধনী একাদশী' র দিন , শেষ হয় কার্তিক পূর্ণিমাতে। এই নয়নাভিরাম উৎসব দুচোখ ভরে দেখতে দেশ বিদেশ থেকে হাজার হাজার মানুষ ভিড় করেন বেনারসে। সন্ধ্যেবেলা এই দৃশ্যকে আরো মায়াবী করে তোলে দশাশ্বমেধ ঘাটে তরুণ পুরোহিতদের 'গঙ্গা আরতি'। শুদ্ধ মন্দ্র স্বরে মন্ত্রোচ্চারণ ,শঙ্খধ্বনি ,কাঁসর ঘন্টা আর ঢাকের সম্মিলিত সুর অপূর্ব স্বপ্নের পরিবেশ তৈরি করে দেয়।

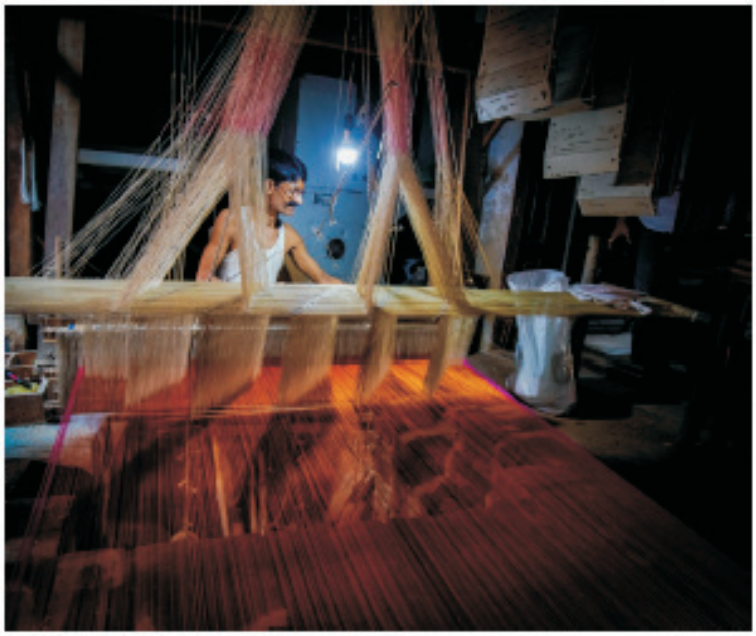
অনেক পুণ্যবলে হয়ত ক্যামেরা কাঁধে সাক্ষী হতে পেরেছিলাম এরকম কালজয়ী এক সন্ধ্যার।

আসতো মা সদগময়
তমসা মা জ্যোতির্গময়
বিশ্ববাসীর কাছে শান্তির খোঁজে এক চেনা ও প্রিয় ঠিকানা

বিবিধের মাঝে দেখ মিলন মহান

কুস্তির আখড়া তে । বেনারসে র এক অবিচ্ছেদ্য অংশ।

বহু যুগ ধরে এই পরম্পরা একই ভাবে অস্তিত্ব রেখে চলেছ ।



বিখ্যাত বেনারসী সিল্ক শাড়ি । কোনো আধুনিক যন্ত্র নয় এখানকার শিল্পীরা □ছ যুগ আগের জটিল যন্ত্র দিয়ে অসাধারণ স□ শাড়ী তৈরি করেন। এক একটি শাড়ি তৈরি করতে মাস দেড়েক সময় লাগে।

গঙ্গা আরতি।

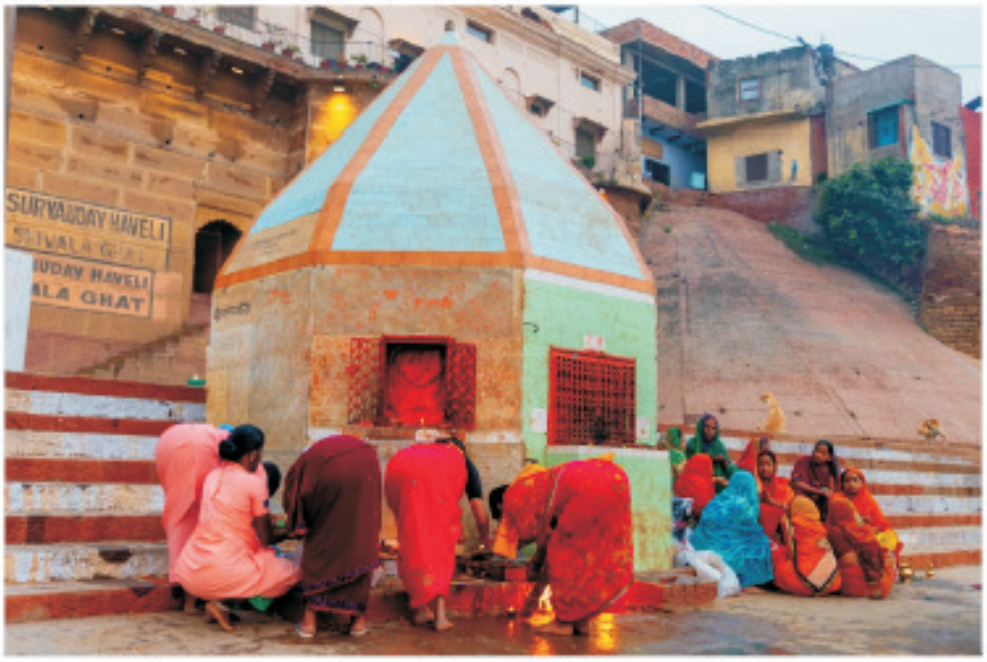
নিঃসন্দেহে □নারসের স□ থেকে আকর্ষণীয় অনুষ্ঠান।

একাধিক গঙ্গার ঘাটে এই আরতি প্রতিদিন সন্ধ্যা সাত টা থেকে শুরু হয়।

দর্শক সমাগম সব থেকে বেশি হয় দশাশ্বমেধ ঘাটে।

রঙিন পোশাক পরা পুরোহিতদের এই আরতি ভক্তদের কাছে খু□ই জনপ্রিয়

মনিকর্নিকা ঘাট- যেখানে চিতা কখনো নেভে না



বেনারসের ঘাটের অসংখ্য মন্দিরের একটিতে পূজার প্রস্তুতি।

দেব দীপাবলিতে শিবের আরাধনা।

ঘরে ঘরে ডাক পাঠালো , দিপালিকায় জ্বালাও আলো

জ্বালাও আলো , আপন আলো সাজাও আলোয় ধরিত্রীরে ।।

গঙ্গা ঘাটের আলোকসজ্জায় ব্যস্ত এক গৃহবধূ।

মুছে যাক গ্লানি, ঘুচে যাক জরা।

42 WB STATE PEDICON

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West Bengal Academy of Pediatrics

Award Paper

Role of Point of Care Gastric Ultrasonography in predicting Feed Intolerance in critically ill children admitted in Pediatric ICU in a Tertiary Care Hospital of Kolkata

Dr Biswadeep Das, Under Guidance of Dr Rupa Biswas,Dr N C Mahapatra

Background- With increasing use of POCUS byPediatricIntensivists, POCUS may be used to measure Gastric ResidualVolume (GRV) in predicting Feed Intolerance in PICU Patients on Enteral Nutrition.

Objectives- Our study aimed to compare uGRV in critically ill children with tolerance or Intolerance of Enteral Feed & to assess the same as a tool in predicting Intolerance early.

Materials & Methods-It was a Prospective Observational study. The patients admitted in PICU, already on Enteral Nutrition are included in our study.

Study conducted over the period of last 3 months(from 1stFebruary 2023 to 30th April 2023). Total no of patients under study- 78.

Children between age of 1yr to 12 years who were alreadyon Enteral Nutrition&were planned for initiating Enteral feed were included in our study. However patients with hemodynamic instability or GI surgical conditions were excluded from our study.

Before starting EN, the OG/NG tube aspirated & GRV-0 was recorded byUSG machine . Similarly GRV-1, GRV-2, GRV-3 & GRV-4 were measured at 1, 2, 3 & 4 hrs of Feed respectively. During the USG , each time AP & CC diameters of Stomach noted , from there CSA of Antrum derived. Using the Spencer Formula GRV calculated. This procedure repeated once daily for a minimum of 2 days.

TotalData collected for168 occasions.

Collected Data analysed using MS Excel sheet &STATA 14 Software.

Results– Feed Intolerance encountered only on 18 episodes out of 168 episodes.GRV4 was the Best predictor of Feed Intolerance with 99.7% AUROC, Sn- 100% Sp- 73.9%, (95% CI) f/b GRV3 with AUROC 92.8% , Sn-91.7% Sp- 58 % (p value <0.05)

Conclusion- Serial USG measurements by POCUS can be used in PICU in critically ill patientsreceiving enteral tube feed for prediction of gastric feed Intolerance.

Enhancing Efficiency and Patient Care: The Use of Kaizen by Nurses for Preparing Airway Trolley in a Pediatric Cardiac ICU

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Background:

One of the pivotal aspects of care in Pediatric Cardiac Intensive Care Unit (PCICU) is the readiness and accessibility of essential equipment, particularly the airway trolley.

Objective:

This study examines the effects of Kaizen, a philosophy of continuous improvement, on airway trolley setup in our PCICU.

Materials and Methods:

Kaizen, meaning "change for better," is a Japanese philosophy focusing on constant, incremental improvement and staff involvement. The hypothesis tested whether Kaizen could enhance care quality, decrease errors and waste, and increase nurse satisfaction in a 10-bed PCICU. Changes were implemented and assessed over six months.

Results:

We demonstrated a remarkable reduction in response times during pediatric cardiac emergencies, from 4.82 to 2.14 minutes, post-Kaizen ($p < 0.001$). Time spent on airway trolley preparation decreased significantly from 12.5 to 7.3 minutes ($p < 0.001$), facilitating efficient resource allocation. The frequency of errors in preparation plummeted from 4.2 to 1.1 errors per month. Furthermore, waste reduction was achieved through streamlined processes, with nurses reporting a 30% reduction in preparation time. Resource utilization became more efficient, requiring fewer additional staff members during emergencies, and a decrease in disposable material usage was observed. Nursing staff expressed heightened confidence and preparedness, reporting reduced stress levels during high-stress situations.

Discussion and Conclusion:

The study confirms Kaizen's effectiveness in healthcare process optimization, demonstrating its value in improving pediatric cardiac care.

Spectrum of Pediatric Epileptic Encephalopathy- recognition of genotypic variants &treatment approach– A case series from a tertiary care hospital in Eastern India

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Background – Epileptic Encephalopathies (EE) is related to conditions whereby the abundant epileptiform abnormalities and/or high number of epileptic seizures themselves contribute to cognitive regression whereas the term "developmental and epileptic encephalopathy" (DEE) is appropriate to use when both developmental impairment and epileptic activity have impact on the cognitive and behavioral state of the affected person. Most patients with DEE have a genetic etiology, whereby the genetic variant is responsible for both cognitive impairment and severe epilepsy: in such cases, even with control of seizures, the cognitive outcome is expected to be poor. Here we conducted an observational study on the spectrum of pediatric epileptic encephalopathy describing the underlying etiologies and recognizing electroclinical syndromes and treatment approach with outcome measurements at follow up.

Objective – To expand the spectrum of pediatric epileptic encephalopathy delineating the underlying etiology with geneticvariants, treatment approach and outcome measurements.

Methods- We conducted a single centre prospective observational study recruiting children below 18year age with epileptic encephalopathyfrom May 2022 to April 2023 in a tertiary care hospital of Kolkata and analyzed the data on their clinical presentation, electroencephalographic findings, etiological workup with genetic diagnosis,treatment approaches with cognitive and seizure outcome measurements.

Results- Total 25 patients of epileptic encephalopathy were included. Median age of our study population was 3years (1- 5.5 y) with 52% of boy child.Ten (40%) of them had been diagnosed to haveWest syndrome, 6(24%) patients as Lennox-Gastaut Syndrome(LGS), Ohtahara Syndrome in three(12%) child,two having features ofepilepsy aphasia spectrum disorder. Progressive Myoclonic Epilepsy(PME) was found in three (12%) patients, one of them was diagnosed asgenetically confirmed pathogenic variant of Neuronal ceroid lipofuscinosis(NCL). Structural evidence in neuroimaging with genetic diagnosis of tuberous sclerosis was found in three (12%) patients.Treatment approach was based on etiological diagnosis and genetic results.Two patients of clinically suspected Dravet syndromewithrefractory epilepsy havingtypical SCN1A mutation and chromosome 15q deletion with variant of uncertain significance(VUS) respectively showed good response with ketogenic diet. Whereas one child with Continuous spike wave discharge in sleep(CSWS) features was having GABRB2 mutation (DEE 92)and another with refractory LGS havingSLC1A3 mutation with VUShad been treated with immunomodulator therapy with monthly pulse methyl prednisolone. One child with LGS spectrum having prominent ataxia was found to have PARS2 mutation of likely pathogenic variant whose seizure was controlled with antiseizure medication(ASM) optimization though for cognitive improvement mitochondrial cocktail therapy was given.

Conclusion-Early recognition of epileptic encephalopathy and intervention permits optimal and often improved outcomes.Identifying the underlying etiologies with genetic diagnosis and electroclinical syndromes can assist with prioritizing investigations and selecting best treatments.

Use of Lung USG in PEEP titration in comparison to Arterial Oxygenation level estimation in children withARDS admitted in PICU of a tertiary care hospital in Kolkata

Dr.Soumyadeep Bhanja, Dr. Nepal Ch. Mahapatra, Dr. Sumita Pal, Dr. Rupa Biswas

Background- Mechanical Ventilation with low TV & high PEEP is conventional strategy for improving oxygenation in patients with ARDS& patients may require recruitment maneuvers with high pressures to achieve satisfactory opening of collapsed alveoli. The Arterial oxygenation method,validatedto detect efficacy of recruitment is invasive & often associated with complications. Lung USG easily available in PICU can be used in ARDS patients for assessing the same.

Objective- Our study aimed at assessing role of lung USG to evaluate lung recruitment in patients with ARDS.

Materials & Method- Observational Prospective Study.The patients admitted in PICU with ARDS included in the study.

Study conducted over a period of 4 months. (1st June– 30thSept 2023)

Total No of patients –7

Patients with ARDS (Berlin criteriai.e. PaO2/Fio2 <=300 with PEEP >=5 cm H2O)were included in our study. However patients with hemodynamic instability were excluded .

All the patients were Intubated & on MV were initially on VC mode followed by PC mode.Baseline lung mechanics noted & ABG sampling done. Simultaneously USG performed in a particular position& LUS aeration pattern noted as defined by Bouhemad et al. (C B1 B2&N patterns) by dividing the lung field into 12 zones. Then Recruitment maneuver performed in PC mode by gradually increasing PIP& PEEP based on ABG findings& then Decruitment maneuverperformed following same. On each occasion LUS pattern noted.

Results-In all the cases, LUS patterns correlated well with Arterial Blood gas findings during Recruitment & decruitment phenomenon.

Conclusion-With advantage of being non invasive , safe with no radiation exposure & easily repeatable bedside USG can be used alone for assessing lung recruitment & to select appropriate level of PEEP to prevent decruitment during expiration.

Prospective study on comparison of inflammatory markers between bacterial sepsis and juvenile idiopathic arthritis

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Background: Inflammatory parameters are raised in response to tissues damage due to infections or non-infectious causes. Many patients of juvenile idiopathic arthritis (JIA) present with disease flare up which mimics infections. Early differentiation of these two entities is crucial for commencement of appropriate management. Here we studied inflammatory markers in patients with bacterial infection and JIA flare at presentation.

Objective: Tocompare inflammatory parameters in children with bacterial sepsis and JIA flare at presentation.

Materials and Methods: This prospective, case-control study aims37 patients ofmicrobiologically proven bacterial sepsis and37 patients of JIA,aged 1 month to 12 years were included. Those suffering from malignancies, shock and other autoimmune conditions were excluded. Clinical details and inflammatory biomarkers includingTotal Leucocyte Count (TLC),Platelet Count, C Reactive Protein (CRP),Ferritin, Procalcitonin (PCT) and Fibrinogen were studied at presentation. Data has beenanalysed following standard statistical methods.

Results:
There is differential elevation of inflammatory markers in JIA and Sepsis.Inflammatory biomarkers that significantly differentiates Sepsis (at Presentation) and JIA (during Flare) are:

- Procalcitonin is significantly raised in Sepsis than JIA (p-value <0.0001).
- CRP levels (p-value <0.0001)and Total Leucocyte Count levels (p-value <0.0001) are more in JIA than Sepsis.
- Platelet Count (p-value=0.11), Ferritin (p-value=0.4) and Fibrinogen (p-value=0.15)levels show similar trend in both the groups.

Conclusion: AlthoughSepsis and JIA flare may present with fever and multi organ dysfunction, differential elevation ofinflammatoryparameters can be used as markers to differentiate Bacterial Sepsis and JIA, hence, can be useful for early diagnosis and initiation of disease targeted treatment.

Limitation: This is a single center study, further research is needed with bigger sample size.

A multicenter randomized control trial to compare the efficacy and safety of single dose versus two doses of rituximab in children with difficult nephrotic syndrome

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Background:

Rituximab is an important armamentarium for difficult nephrotic syndrome. Benefit of continuing MMF post rituximab has been shown in recent RCT but the dose of rituximab has not been exploredtill now. We undertook this RCT to assess our hypothesis that with post rituximab continuation of MMF, single doseis non-inferior to double dose of rituximab.

Objectives:

Primary objective was time to first relapse

Secondary objectives include time to CD19 repopulation, post rituximab cumulative dose of steroid and incidence of serious adverse event.

Materials and Methods:

A multi-center open label randomized controlled non-inferiority trial was conducted in children (2-18 years) with difficult nephrotic syndrome, wherein they received either single or double dose of rituximab. Post rituximab MMF continued but steroid was tapered over next 3 months.

Results:

A total of 96 children were randomized to receive either single dose or double dose rituximab. No differences were noted between thetwo groupsin the baseline criteria. Primary outcome was tested by intention to treat analysis and was similar between single dose (11; IQR: 6 to 13.5) versus double dose (10; IQR: 6 to 14) group, $p = 0.72$. Comparison of secondary outcome between two groups were also similar.

Conclusions:

The current RCT demonstrates that children with difficult nephrotic syndrome treated with rituximab and continued on MMF, single dose is non-inferior to double dose.

Paediatric Immunological Kidney Diseases: Electron Microscopic Evaluation

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Background:EM helps in assessment of extent of podocytes effacement & status of glomerular deposits & identification of tubular changes. EM has been used for diagnosis of kidney diseases over a decade. However, there is lack of research on this topic in paediatric population.

Objectives: This study aimed to recognize the value of EM in the diagnosis, treatment & prognosis compared with LM& IF.

Methodology: In this prospective, longitudinal, observational, tertiary hospital-based study. EM was done in 18 paediatric patients who underwent renal biopsy in our hospital over last 30 months. One viable Glomerulus & accompanying Tubulo-interstitium were analysed with EM. Patients were divided into 3 groups – Lupus Nephritis, Familial Nephritis & non-familial SRNS. The EM findings & their contribution toprimary diagnosis were assigned into 3 categories – Essential / Contributory / Not Required.

Results: The median (IQR) age of the patients was 7.45 (5, 11) years. Most (77.7%) of them were girl. Podocyte changes were present in 88%, electron dense deposits in 33% & tubular changes in 44%. EM was found to be essential for diagnosis in 28%, contributory to diagnosis in 39% and not required in 33%.

Conclusion:It is possible to make a diagnosis of renal diseases based on LM & IF Findings. But there are some diseases where EM is required to reach a definitive diagnosis (such as Minimal Change Disease, Hereditary Nephritis & Lupus Podocytopathies). This study thus encourages inclusion of EM in routine evaluation of all kidney biopsies in children.

Causes and Outcome for Non-compliance to Aerosol Therapy in Adolescent Asthma: A Prospective observational Study in Eastern India

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Background:The burden of asthma is particularly notable in adolescents, and is associated with higher rates of prevalence and mortality compared with younger children. Suboptimal compliance to aerosol medication is common in adolescent asthma. The main purpose of this study is to assess noncompliance to aerosol therapy in adolescents asthma and determine contributory factors along with outcomes.

Objectives: To explore the driving factors behind non-compliance in adolescents with asthma, consider their consequences and suggest possible solutions to ensure better disease control. Also to explore the barriers and facilitators of aerosol in Adolescent Asthma.

Materials and Methods: A prospective observational study was conducted among Adolescent patients (10-19 yrs) attending asthma clinic. Patients (n = 115) having “mild” and “moderate” asthma severity rating were included as per GINA 2023 guideline. The total study duration was 12 months (august 2022–august 2023), with an active recruitment phase of 6 months. The minimum period for follow-up was 90days. Caregivers were instructed to maintain an “asthma diary” for daily dosages of inhalers. At follow-up, the diary entries were corroborated with the amount of inhaler medication unused. Subsequently, medication compliance ratio (CR) was calculated according to the following formula: CR = number of medication doses taken/number of medication doses prescribed. CR% >80 was considered as “good compliance”.

Results:A total of 90 patients (78.6%) returned for follow-up. The mean compliance to asthma medication was suboptimal (75.3%). The adolescents were primarily prescribed inhaled corticosteroids and Long acting beta agonist (LABA)-based regimens on index visit. Leukotriene receptor antagonist was added in select cases (67.9%). Nearly 45.6% of the patients had “good compliance.” CR correlated with the sociodemographic profile and disease severity. Higher socioeconomic status and proper inhaler technique reflected better symptom control. Fear of side effects, behavioral difficulties, and economic restrictions were the identified causes of medication default. Conclusion:In the Eastern part of India, compliance to aerosol therapy in asthma is suboptimal. Sociodemographics, disease severity, and inhaler technique are important determinants. The main consequence of Non-compliance to Aerosol Therapy is poor symptom control, higher rates of exacerbations and reduced quality of life.

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Poster Paper

Abstract for study of Gastric Lipase in preterm neonates

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Background: Premature newborns often face challenges related to feeding intolerance owing to gut immaturity and low levels of digestive enzymes. Since the levels of salivary and pancreatic lipase are low in preterm neonates, gastric lipase should play an important part in fat digestion in these babies. We aim to study the efficacy of gastric lipase concentration in predicting future feeding intolerance in late preterm appropriate for gestational age (AGA) babies.

Objective : Significance of Gastric Lipase Concentration in Predicting Feed Intolerance in Late Preterm AGA Neonates

Materials and Methods: We conducted a cross sectional observational study involving 68 late preterm neonates admitted to our Neonatal intensive care unit. Gastric aspirate samples were obtained before initiation of first feed via a properly placed nasogastric tube.Gastric lipase concentration was measured using Enzymatic colorimetry method. Signs and symptoms of feed intolerance like significant increase in abdominal girth , volume of aspirate and recurrent vomiting were closely monitored.

Results: Neonates with signs of feed intolerance had significantly lower levels of gastric lipase enzymes than the ones who did not. Using a Independent sample's T test, the mean value of gastric lipase in the group who did not develop feed intolerance (32 out of 68) was 42.503 U/L (p Value < 0.05) as compared to the group who did (4.46 U/L).

Conclusion: Gastric lipase concentration at birth holds promise as a predictive tool for subsequent feed intolerance in late preterm neonates. This can be a simple, easy to measure, cheap and clinically reliable marker that may facilitate timely intervention and improve overall neonatal outcomes.

Daily vs.Alternate-day Levamisole in Nephrotic Syndrome- an open label RCT

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Background:
Levamisole is cheaper and less toxic steroid sparing agent used in nephrotic syndrome. It has a plasma half-life of 5 hours but is conventionally administered every alternate-day. We aimed to assess whether daily Levamisole is safe and more effective than conventional alternate-day therapy in frequently relapsing (FR) and steroid dependent nephrotic syndrome(SDNS).

Objective :

- Primary: To demonstrate superiority of daily dose Levamisole to maintain remission over alternate day dosing
- Secondary: Assessment of
  - time to first relapse
  - relapse rate per month
  - cumulative steroid dose required per kg per month
  - adverse effects

Methods:
An open label randomized controlled superiority trial was conducted in children with FR/SDNS. Group A received daily while Group B received alternate-day Levamisole (2-3mg/kg/dose). Prednisolone was tapered off by 3 months. Patients were monitored for relapses, further steroid requirement and adverse effects.

Results:
A total of 190 (Group A: 94, Group B: 96) children with FR/SDNS entered into the study were analysed on a modified intention to treat basis.Sustained remission for 12 months was seen in 34 Group A and 26 Group B patients (p=0.18). Numbers completing 12 months were 63 in Group A and 54 in Group B (p=0.13). The rest were withdrawn earlier due to persistent FRNS, steroid toxicity, adverse effects or poor compliance (Table 1). NS relapse rate and cumulative steroid dosage was significantly lower in Group A compared to Group B (p=0.029 and p=0.025). Reversible leucopenia and hepatic transaminitis being the commonest adverse effects in both groups.

Conclusions:
Daily Levamisole therapy was not superior to alternate-day therapy in maintaining sustained NS remission over 12 months, however relapse rate and cumulative steroid dosage were significantly lower without significant adverse effects.

Table 1: Results of Daily (Group A) vs Alternate Day (Group B) Levamisole therapy.

	Group A n=94	Group B n=96	p value
Sustained remission till 12 months[a]	34 (36%)	26 (27%)	0.18
Continued in trial for 12 months[a]	63 (67%)	54 (56%)	0.13
Persistent FRNS[a]	17 (18%)	27 (28%)	0.1
Poor compliance / follow-up[a]	8 (8.5%)	10 (10.4%)	0.65
Relapses per month[b]	0.08 (0 to 0.17)	0.08 (0 to 0.32)	0.029*
Cumulative Prednisolone dose per kg per month[b]	6.71(3.03 to 12.86)	9.29 (3.96 to 19.87)	0.025*
Adverse effects[a]	8 (8.5%)	5 (5.2%)	0.37

[a]Patient numbers represented as number(percentage)
[b]Continuous data represented as median (IQR)
*Statistical significance at $p<0.05$

ASSESMENT OF NUTRITIONAL STATUS OF CHILDREN WITH CONGENITAL HEART DISEASES: A CASE-CONTROL STUDY

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Background: Children in impoverished countries have suffered greatly due to malnutrition. However, its being more pronounced among children with congenital heart disease.

Objectives: This study is aimed at determining the nutritional status of children with congenital heart disease compared to those without CHD.

Materials and Methods: It's an institutional-based case-control study conducted over nine months on 180 children aged 1 to 60 months (cases & control=1:1).Children diagnosed with CHD by echocardiography were included as cases. Controls (age and gender matched) were selected from the well-baby & immunization clinic. Anthropometric calculator was used to generate standard deviation (SD) of weight for age (WA), height/length for age (H/LA), and weight for height /length (WH/L) of each child. Data was analyzed using EpiInfo software. A Chi square (X^2) test `was run to compare categorical variables and a p value <0.05 was set as statistically significant.

Results: Among study subjects, male: female baby ratio was 1.09:1. 58.89% of subjects were < 6 months. 84.43% were acyanotic &15.57% were cyanotic CHD. Study depicts wasting (WH/L=< -2SD) in 63.32% of subjects compared to 6.67% of controls, differences being statistically significant (X^2=61.05, P = <0.0000001). Stunting (H/LA = <- 2SD) of subjects were much more (56.67%) compared to controls (14.40%). (X^2=33.19, P = <0.0000001).

Conclusion: Children with CHD are more malnourished than those without CHD. Malnutrition accentuating morbidity and mortality should be addressed early.

*Keywords: ch**ildren, cases-controls, congenital heart disease, nutritional status***

Echocardiographical findings and correlation with laboratory values in children with
Septic Shock: An observational study

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OBJECTIVES: Septic Shock is the leading cause of morbidity and mortality in intensive care units worldwide.It is often accompanied by myocardial dysfunction.Myocardial dysfunction is associated with the severity of the systemic inflammatory response syndrome and is the major cause of death.Thus the objective of this study is to find out correlation between Echocardiographical findings and laboratory values in septic shock.

METHODOLOGY: This is a prospective observational study in a tertiary care hospital.All children admitted in Pediatric intensive care unit with a diagnosis of septic shock were included.Echocardiography were performed and blood samples of Hemoglobin,TLC,RDW,Albumin,Bilirubin,ESR,CRP,Serum Ferritin, Procalcitonin, lactate and LDH were taken.Complications of septic shock were also noted (Acute kidney Injury,ARDS, Seizure, Disseminated intravascular coagulation and Death)

RESULT:
*The present study showed that mortality rate among the children with severe sepsis was 43.1%
*Among all the hematological parameters such as Hemoglobin,TLC,ESR RDW,ALbumin,Bilirubin shoes no significant differences between survivors and non survivors.
*Platelet count was significantly less in non-survivors on Day2 and Day7
*Prothombin time correlated with mortality
*Among the inflammatory markers Ferritin,procalcitonin,lastate and LDH has significant association with mortality as these parameters were significantly more in non survivors.
*CRP has no satisfactory prognostic value.

CONCLUSION: We have shown that children with Mod to severe Myocardial dysfunction associated with Septic Shock had greater plasma levels of laboratory values and more complications than those with Preserved or mildly decreased Myocardial dysfunction.Majority of deaths were due to Multiple Organ Dysfunction syndrome.

PROFILE OF PERTUSSIS PATIENT ADMITTED IN PICU AT A TERTIARY CARE HOSPITAL IN KOLKATA

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BACKGROUND:
Even after the universal vaccination against pertussis several form of pertussis has emerged . We have also encountered an increasing number of Pertussis in these days.

OBJECTIVES:
To note the demographic profile, clinical features, laboratory findings, vaccination status, treatmentand outcome of the children who had been admitted with pertussis in PICU .

MATERIAL AND METHODS:
Retrospective observational study of cases of pertussis who required PICU support from August 2018 to June 2023 at Institute of child health, Kolkata.

RESULTS:
A total of 91 patients (OPD 57,IPD 34)were positive for pertussis by respiratory PCR during this time period.15 required PICU support .The median age of affected individuals was 5 months. Only 2 patients(13%) had whoop, 3(20%) had subconjunctival hemorrhage, ,3(20%) had convulsion . Only 1 patient had history of complete immunisation. 8 cases received only birth dose of vaccination (no dose of pentavalent/DTP) while 6 cases were partially immunised for pertussis. None of the mother had received Tdap during pregnancy. 1 child only needed moist O2 by nasal prongs, 5 improved after HHFNC support, 1 needed CPAP, 2 required NIV, 6 cases had to be intubated and put on Mechanical ventilation 3 of which were given HFOV. 9 patients were successfully discharged in hemodynamically stable condition, 2 took discharge against medical advice and 4 children succumbed to the disease.

CONCLUSION:
Non immunisedInfants with pertussis are more likely to be hospitalised. Maternal immunisation with dTap during pregnancy significantly reduce incidence of severe pertussis in young infants.A significant numbers of infants with pertussis needs PICU care.

CASES OF MYELIN OLIGODENDROCYTE GLYCOPROTEIN ANTIBODY ASSOCIATED DISEASE

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Background:

Myelin Oligodendrocyte glycoprotein antibody-associated disease (MOGAD) is as inflammatory disorder of central nervous system characterized by attacks of immune-mediated demyelination predominantly targeting the optic nerves, brain and spinal cord and the disease has a predilection for children.

Objectives:

To note the clinical features, laboratory investigations, Radio-Imagings, Therapy , Necessity of Intensive care support and Outcome of MOGADs.

Materials and Methods:

Retrospective analysis of Clinical and Neuroradiological parameters of children admitted in ICH from June 2022 to May 2023,suffering from ADEM, Optic Neuritis, Transverse Myelitis, MDEM with serum positivity for anti-Myelin Oligodendrocyte glycoprotein IgG(Anti MOG-Ab) antibodywere noted.

Results:

A total of 10 children were included in the study. Approximately 80% had a history of preceding viral infection and almost all child presented with altered sensorium or with some form of neurological deficits. Bladder bowel disfunction were present in 40% cases. CSF study was not conclusive and MRI was diagnostic in most of the cases which showed asymmetrically placed demyelination all over cerebral hemispheres and in 30% cases features of optic neuritis. Almost all cases needed PICU admission and 40% of them needed invasive interventions. All of the cases were positive for serumAnti MOG-antibody. All of them were treated with steroid and complete neurological recovery was in 90% children.

Conclusion

The evaluation for MOGAD entails MRI of brain , spine and orbits; Serum testing for MOG-IgG antibody and CSF analysis for Oligoclonal bands. An early identification of MOGAD and steroid therapy with PICU support leads to an excellent outcome.

THE VARIED COMPLICATIONS OF ADENOVIRUS INFECTION

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Introduction

Human adenoviruses can cause infections at any age but most commonly in pediatric population, especially in young children and infants. It cause variety of infections-namely upper and lower respiratory tract disease(bronchiolitis & pneumonia), keratoconjunctivitis, gastroenteritis ,myocarditis,meningoencephalitis.

Case series

Case 1: Adenoviral Pneumonia with Acute Disseminated Encephalomyelitis

A 2yr 5m old child was admitted with adenoviral pneumonia. Later multiple episodes of convulsion were noticed.Child was on invasive mechanical ventilation .MRI brain showed T2 hyperintensity over bilateral parieto-occipital cortex along with underlying white matter.Serum MOG antibody was postives. Child was managed with IV anticonvulsants & Methylprednisolone.

Case 2 : Adenoviral Pneumonia with Acute Respiratory Distress Syndrome

A 20 days old neonate was admitted with adenoviral pneumonia. Initially baby was on non-invasive ventilation & later on invasive mechanical ventilation(low tidal volume & high PEEP) as Oxygenation Index (OI) was 42. Baby was managed by iv Dexamethasone, magnesium sulphate, aminophylline, milrinone.

Case 3:Adenoviral Pneumonia with myocarditis

A 5 month 15 day old child was admitted with adenoviral pneumonia & on non-invasive ventilation. Later child was developed persistent tachycardia, had PSVT on ECG.Trop T was positive.CK-MB (80) & NT-Pro BNP(520) was raised.So,the child Was diagnosed with myocarditis & managed by IVIG ,inj. Adenosine.

Case 4: Adenoviral Pneumonia with myocarditis

A 3 month old boy admitted with adenoviral pneumonia & on invasive mechanical ventilation.Later child was developed persistent tachycardia & cardiogenic shock. Trop-T was positive. CK MB (97)& LDH (820) was raised. ECG had ST elevation.He was managed by IVIG, inj.Dobutamine ,inj.frusemide & ACE inhibitor.

Conclusion

Adenoviral pneumonia is probably responsible for about 10% of the pneumonias of childhood. Supportive care is the mainstay of adenovirus treatment in most cases. Careful monitoring is required in severely ill patient.Early detection and early initiation of treatment may provide more successful clinical outcomes.

CASE SERIES ON THE ANALYSIS OF VARIED PRESENTATIONS OF ACUTE DISSEMINATED ENCEPHALOMYELITIS IN CHILDREN

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INTRODUCTION

Acute disseminated encephalomyelitis (ADEM) is a rare, self-destructive, demyelinating disorder of the central nervous system, mainly affecting children, with an incidence of 0.07–1.1 per 100,000 persons and a mortality rate of up to 6.5%(1).It frequently follows exanthematous viral infections or vaccinations(2). Although numerous causative pathogens have been identified, less than 5% of ADEM cases occur after immunization.

The pathogenesis of ADEM is not completely understood, possibly involving molecular mimicry or the activation of pre-existing B-cells and T-cells with antimyelin activity, leading to inflammatory and demyelinating processes in the CNS(3). Diagnosing ADEM can be challenging due to conditions that mimic its symptoms and the lack of specific biomarkers(4).

We present four cases of ADEM:

Case 1: A 5-year-old girl with visual blurring, headaches, and abnormal behavior, previously hospitalized with different symptoms. Neuroimaging revealed brain hyperintensities.

Case 2: A 2-year-old boy with irritability, paraparesis, back pain, and urinary retention, showing signs of encephalomyelitis on neuroimaging.

Case 3: A 9-year-old girl with fever, irritability, right upper limb pain, and right-sided hemiparesis, diagnosed with encephalomyelitis.

Case 4: An 11-year-old malnourished boy with fever, recurrent seizures, and altered sensorium, found to be HIV-positive with brain MRI changes.

DISCUSSION

Our cases highlight the diversity in ADEM presentation. Given its rarity and varied clinical manifestations, ADEM is often not considered initially. Despite variations in evaluation, most patients experience full recovery with a normal neurological examination. With an evolving understanding of pathobiological mechanisms, genetics, and biomarkers in neuroimmune disorders, new therapies are emerging.

CONCLUSION

Maintaining a high index of clinical suspicion, recognizing atypical features, and utilizing neuroimaging and CSF studies are crucial for prompt diagnosis. Early diagnosis and treatment are essential to prevent neurological sequelae and persistent deficits.

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Behavioural problems as a outcome inAcute disseminated Encaphalo Myelitis

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Background: ADEM is an inflammatory, demyelinating, monophasic, CNS disease with polysymptomatic presentation. Multifocal characteristic hyperintensities seen in T2W and FLAIR sequence MRI clinch the diagnosis.

Objective: The purpose of this case series is to show the short term (at 6m FU) behavioural problems) as a outcome of Acute Disseminated Encephalo Myelopathy (ADEM).

Methods: All patients data were obtained from history, clinical examination and medical records of 35 patients admitted in IPGMER. Relevant investigations including MRI and CSF study were performed. Behavioral data were obtained from a validated questionnaire of CBCL scale by interviewing parents.(CBCL and 1992 profile), 4-18 years (for boys and girls, CBCL and 1991 profile).

Results: All patients presented with encephalopathy and various combination of sensory, motor, meningeal and autonomic symptoms. MRI showed typical features consistent with ADEM. CSF showed normal cell count and no evidence of infection. All patients were treated with intravenous methylprednisolone and four improved markedly.Among 31 surviving cases 29 were assessed for behavioural abnormalities at 6 months post discharge i.e. at second follow-up visit and found 7 patient had behavioural problem as per CBCL scale.

Conclusion: Earlyintervention andinduction of immunomodulators therapy serve to improve prognosis albeit risk of exacerbation, usually self remittingbut possible better prognosis with immunomodulators like steroids that may reduce the impact of residual neurological symptoms and behavioural problems.

Key message: ADEM can present after infection or vaccination. Early diagnosis with MRI and treatment optimizedisease outcome.

Unusual presentation of dengue fever is more common in elderly children than young on bar diagram unusual presentation

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Background

Dengue fever which is caused by several arthropod-borne viruses, is characterised by biphasic fever, myalgia or arthralgia, rash and leukopenia. It has four antigenic types - dengue 1, 2, 3, and 4, which are members of the family Flaviviridae. Unusual symptoms like acute hepatitis, acute kidney failure, pleural effusion, shocks, pulmonary haemorrhage and seizures are more common in elderly children.

Objective

Unusual presentations are more common amongst elderly children than young on bar diagram unusual presentation.

Material and methods:

Children attending hospital with signs and symptoms of dengue fever were tested for NS1 antigen and IgM /IgG antibody serology based on the day of illness by Enzyme-Linked Immunosorbent Assay(ELISA) technique.

Results:

In last 3 months there were total 50 cases of serology positive children in our hospital amongst which elderly children had more unusual symptoms than the younger ones and the severity like acute kidney failure, acute hepatitis, seizures, pulmonary haemorrhage and shock was more common in elderly.

Conclusions:

Dengue is commonly managed by judicial usage of fluid resuscitation but in case of unusual manifestations, it could be fatal if not detected early as the therapeutic window period is very short. Clinicians should have awareness regarding these manifestations which are rare and thus underreported.

Comparison of neurological outcome of clinical versus clinical and Near Infrared Spectroscopy guided management of encephalitis syndrome

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Abstract:

Introduction: Continuous non-invasive monitoring of regional cerebral oxygen saturation (rSO2) carried out by Near-Infrared Spectroscope (NIRS) technique has shown to be reliable surrogate marker of cerebral perfusion which can be an observer-independent measure of tissue hypoxia.

Objective: We aim to compare the Glasgow outcome scale (GOS)sore in children with Acute Encephalitis syndrome (AES) treated according to clinical assessment and clinical along with NIRS monitoring.

Methodology: This prospective observational pilot study includeschildren (3months to 12years) of AES admitted in PICU within March'22 to September'22. They were monitored by standard guideline and managed accordingly. A proportion of patients were put on NIRS monitor as per clinician's discretion and an rSO_2<65 were considered as intervention threshold alongside other clinical parameters. We recorded GOS score at discharge along with length of PICU stay, hospital stay and 28day-ventilator free days (28d-VFD).

Results:41 children included in this study. Mean age was 1.8±2.5years and 22(53.6%) were male. Mean $rSO_2$and GOS score of NIRS group (n= 20) were 58.7±5.5 and 4.16±1 respectively. Mean GOS score of clinical only monitoring groupwas 3.6±1.2. Though the scores were statistically insignificant (p: 0.12) only 1(5%) had severe disability in NIRS group whereas 3(14.2%) patients suffered with severe outcome in clinical group. Median 28d-VFD was higher in NIRS group [26.5 days (IQR 22, 28) vs 22 days (IQR 20, 28); p: 0.13]; length of PICU stay and hospital stay all were much less in NIRS group [5.5days(IQR 4, 9)vs 6 days (IQR 4, 10) p: 0.36 and 10 days (IQR 8.7, 13)vs 11days(IQR 8, 15) p: 0.38, respectively].

Conclusion:

Though there is statistically insignificant difference between outcome of the two groups, NIRS reliably detected changes in cerebral perfusion and thus aided the clinician to take decisive steps early. Hence, NIRS can be used as an adjunct to our clinical monitoring and help to make better outcome profile.

A STUDY TO PREDICT THE OUTCOME OF STATUS EPILEPTICUS IN CHILDREN OF 2 MONTHS TO 12 YEARS OF AGE BY PEDIATRIC MODIFICATION OF STESS SCORE(STEPSS)

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INTRODUCTION

The development of a clinical score,similar to STESS for adults,for predicting short-term and long-term outcomes in pediatric status epilepticus patients is lacking,Thisstudy aims to evaluate the utility of the Status Epilepticus in Pediatric patients Severity Score(STEPSS) for this purpose.

OBJECTIVE

We aim to assess the association between the newly developed clinical score(STEPSS) and established outcome measures such as the POPC(Paediatric Overall Performance Category) score and mRs(modified Rankin scale) score.

METHODOLOGY

This longitudinal observational study was conducted at a single tertiary care hospital in Kolkata.Patients aged 2 months to 12 years presenting with convulsions in the emergency department included.Patients who died within 24 hours of admission or had severe congenital anomalies,excluded.Baseline assessments were done using the STEPSS scoring system.Patients outcomes were assessed using the POPC scale after 2 weeks or at discharge whichever is greater andmRs score after 6 months.

RESULTS:

In this study 81 patients included.53.09% of patients had a STEPSS Score less than 3,while 46.91% had a score≥ 3.Similarly,46.91% had a POPC score less than 3,while 53.09% had a score ≥3.For the STEPSS score, there was a 68% chance of distinguishing between positive and negative classes in the POPC score,and about 63% chance in the mRsscore.The chi square tests showed a significant association between STEPSS and both POPC(p=0.002) and mRs scores(p+0.03).The mean STEPSS at admission was 2.5432±2.5432,while the mean POPC score at discharge or after 14 days was 2.8025±1.4441.The mean mRs score after 6 months was 2.3704±2.2048.The AUC for STEPSS in distinguishing positive and negative classes was 68% for POPC Score and 63.3% for mRs score.

CONCLUSION

STESS is a reliable predictor for status epilepticus outcome.Further research is needed to explore treatment approaches based on STESS.Etiology of status epilepticus can predict initial response and long term outcomes.Multicentric studies are required to validate STEPSS in pediatric patients.

A STUDY ON RESPONSE TO INTRAARTICULAR TRIAMCINOLONE HEXACETONIDE IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

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INTRODUCTION: Intra-articular corticosteroid injection (IAI) is a safe and rapidly effective treatment in children with juvenile idiopathic arthritis. Studies have revealed that triamcinolone hexacetonide (TH), the least soluble of all the corticosteroid esters, is retained in the joint for 2-3 weeks and is safe. Though globally it has been the standard drug for IAI; it was not available in India. Here we have tried to share our experience of its usage following availability about a year back.

AIMS and OBJECTIVES : To assess the response to intra-articular triamcinolone hexacetonide in Juvenile Idiopathic Arthritis (JIA). To note the time to response, duration of remission and safety of intra-articular TH in JIA.

METHODOLOGY :This is a prospective, observational study conducted at Institute of Child Health, Kolkata.Patients of JIA who received intra articular injection with TH were recruited. Indication of intra-articular TH was a) Newly diagnosed cases of Oligoarticular JIA b) Inadequate response to DMRDs(methotrexate+/- leflunomide) in old cases of JIA who had an articular flare. Patients were followed up at 1week, 2 weeks, 1month, 3months, 6months and 12months following injection. At every visit the injected jointswereevaluated for swelling, pain and restriction of movements as well as for any possible side effects following IAI.

RESULTS : A total of 9 patients with a median age of 10 years were included in the study. 4 (44%) were females and 5 (55%) were males. (Table 1) A total of 12 joints injected with intraarticular TH were assessed.Pain and swelling subsided in 10 joints (83.3%)within 1 week and remaining 2 joints (16.7%)improved within 2 weeks. 5 joints (41.7%) showed improvement in range of motion at the end of 2weeks, 6 joints(50%) at the end of 3 months and 1 (8.3%) joint at the end of 6months. Arthritis reappeared in 2 joints (16.7%) at 7 months requiring additional immunomodulator and the rest 83.3% continueto remain asymptomatic. There have been no adverse reactions to the medication.

CONCLUSION: TH has shown to have good responsein JIA in controlling the articular symptoms and is noted to be safe.

Table 1. JIA subtypes of patients who received IAI TH.

	SJIA	POLYARTICULAR JIA	OLIGOARTICULAR JIA	ERA
No of patients	2	2	3	2
No of joints	2	3	4	3

42 WB STATE PEDICON

TITLE-UMBILICAL CORD BLOOD BILIRUBIN AS A PREDICTOR OF NEONATAL HYPERBILIRUBINEMIA

AUTHORS-1. **DR INDRANIL NEOGI (DNB PGT) ,** **2. DR DEBASISH BANDOPADHYAY (ACHD , IC PAED)**

INSTITUTE-**B.R. SINGH HOSPITAL AND CENTRE FOR MEDICAL EDUCATION AND RESEARCH**

BACKGROUND-*TO EVALUATE WHETHER UMBILICAL CORD BLOOD BILIRUBIN LEVELS COULD PREDICT HYPERBILIRUBINEMIA AMONG TERM NEWBORN BABIES WITHOUT COMPLICATIONS IN TERTIARY CARE CENTRE OF EASTERN INDIA .*

OBJECTIVES	***MATERIALS AND METHODS***	***RESULT***
1- To evaluate the accuracy of umbilical cord blood bilirubin in predicting neonatal hyperbilirubinemia . 2- To assess the correlation between umbilical cord blood bilirubin and neonatal hyperbilirubinemia .	• **Type**-Prospective observational study • **Population-** All term , AGA babies • **Duration-** 1 year • **Sample size-** 114	• The mean umbilical cord blood Bil was higher in those neonates who went on to have hyperbilirubinemia and the difference was statistically significant . • 31.6 % neonates developed hyperbilirubinemia at day 3 . • Mean Cord Blood Unconjugated Bilirubin in neonates having either ABO/RH or both incompatibility was higher than those without incompatibility . • 9.6 % had a positive DCT . 91 % among them developed hyperbilirubinemia . • Out of those with NNJ- 89% received phototherapy and 11% received exchange transfusion.

CONCLUSION-Statistically strong positive co-relation was seen between cord blood unconjucted Bilirubin and neonatal unnconjugatedbiliruin at ***day 3*** of life .Morever a cutoff value of ***2 mg/dl*** for cord blood unconjugated bilirubin was identified to have ***100 % sensitivity ,98.7 % specificity*** and ***97.3 % PPV*** ,and ***100 % NPV.***

REFERENCES- 1 Garg and Tiwari- Umbilical cord blood bilirubin as early predictor of significant NNJ- JMSCR 2017

2. AIIMS NICU PROTOCOL 2019

ACUTE LOWER RESPIRATORY INFECTION IN INFANTS: ASSOCIATION BETWEEN SERUM ZINC AND SEVERITY OF RESPIRATORY DISTRESS - AN OBSERVATIONAL STUDY

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BACKGROUND- Acute respiratory infections (ARIs) are the most common reason for hospitalization in infants. Zinc deficiency decreases immunity of the body. Zinc could be a valuable weapon to prevent ARIs, especially in infants. Here, we attempt to study severity of respiratory distress with levels of zinc, so that studies using zinc as a supplement could be attempted in future.

OBJECTIVES- To estimate the relationship between serum zinc levels and severity of respiratory distress in infants with acute lower respiratory infection admitted in a tertiary care hospital in Kolkata

MATERIALS AND METHODS- A descriptive study with cross-sectional design was done on infants admitted with acute lower respiratory infection to a tertiary care hospital in Kolkata. Participants were selected by systematic random sampling, within a 1 year period. Data was collected using a pre-designed structured schedule, which included Respiratory Severity Score. Serum zinc estimation was also done. Statistical analysis was done with the help of SPSS v25.0.

RESULTS – At the time of admission, among total 105 participants, 48.6% (n=51) had severe respiratory distress according to Respiratory Severity Score. About 35.2% of the total participants (n=37) were found to have mild decline in serum zinc levels (<80mcg/dl), among which 59.5% (n=22) had severe respiratory distress. Pearson Chi-square test showed that mother's occupation and RSS score was associated (X^2 8.179, p 0.042). Spearman's correlation pointed out that with a decrease in the serum zinc levels, the RSS score increased, but this association was not significant (rho- 0.149, p 0.139)

CONCLUSION- Reduction in serum zinc levels can be observed in the infants with severe respiratory distress.

A CASE SERIES ON CNS TB IN CHILDREN.

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DESIGNATION: 2ND YEAR PGT.

DEPARTMENT: PAEDIATRICS

COLLEGE: CALCUTTA NATIONAL MEDICAL COLLEGE & HOSPITAL.

- **BACKGROUND:** CNS TB constitutes 10% of all TB cases in children with the highest mortality and morbidity.

- **OBJECTIVES:** Varied manifestations of CNS TB in various stages of the disease, in different age groups and efficacy of prompt treatment.

- **MATERIALS & METHODS:** A prospective, interventional cohort study of CNS TB among children in Paediatric Ward of a Tertiary Health Care Centre.

- **RESULTS:**

  CASE 1: Tuberculous meningitis in a 4 month old female with failure to thrive and 3 episodes of GTCS.

  CASE 2: Tuberculoma in an 11 year old female with 2 episodes of GTCS and positive contact history.

  CASE 3: Pott's Spine in a 3 year 6 month old female with history of chronic low back pain.

  All the three cases had a dramatic response to Anti-Tubercular Drugs (ATD).

- **CONCLUSION:** Diagnosis of CNS TB is difficult in early course, requiring a high degree of suspicion. Later the diagnosis, worse is the neurological outcome of the affected child. Prognosis for younger infants is worse than for older children.

SPECTRUM AND OUTCOME OF USE OF NON-INVASIVE VENTILATION IN A PEDIATRIC CARDIAC INTENSIVE CARE UNIT: A SINGLE CENTER EXPERIENCE

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BACKGROUND:

The Pediatric Cardiac Intensive Care Unit (PCICU) frequently uses Non-Invasive Ventilation (NIV). There are several reasons for its application, including its prophylactic use right after the patient has been extubated. It is also used non-prophylactically when patients are experiencing acute respiratory failure (ARF) due to either cardiac or non-cardiac reasons but are still able to maintain their airway.

AIMS:

The objective of this study was to understand the spectrum of use of NIV following congenital cardiac surgery and analyze the outcome

METHODS AND RESULTS:

A retrospective observational study was conducted in a 14-bed PCICU, reviewing data from August 2019 to August 2022. Among 1750 congenital cardiac surgeries, 523 patients (29.9%) received NIV. The median age of the population was 2.5 months. Factors such as higher RACHS-1 category, longer intraoperative CPB time, and aortic cross-clamp time were associated with increased NIV use. Pre-op ventilator needs, infections, genetic syndromes, diaphragmatic paralysis, high vasoactive inotrope score (VIS) in the first 24 hours, neonates, and weight less than 5 kg were independently associated with increased NIV need. The NIV group had a longer ICU stay compared to non-NIV patients. The success rate of NIV was 84%, with 440 successful cases and 83 failures. The mortality rate in the success and failure groups was not significantly different (5.27% vs. 6.0%).

CONCLUSION:

NIV is widely used in PCICU, but it is associated with longer ICU stays. It proves beneficial after congenital cardiac surgery, especially for patients with specific risk factors. However, NIV may not directly impact mortality rates, suggesting other factors contribute to patient survival.

A STUDY OF CSF CRP IN BACTERIAL MENINGITIS AMONG PAEDIATRICS AGE GROUP IN A TERTIARY CARE HOSPITAL

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BACKGROUND: Meningitis is defined as an infection involving the subarachnoid space. It may be associated with inflammatory process of central nervous system leading to a decreased level of consciousness,seizures or raised intracranial pressure.CNS is protected by the blood brain barrier(BBB),which resists the entry of pathogens,inflammatorycells,and macromolecules into the subarachnoid space.The BBB may be breached in the presence of infections leading to meningitis.Theaetiological diagnosis of meningitis is a diagnostic dilemma.Usually non specific indicators like CSF glucose,proteinconcentration,WBC or neutrophil count are used for aetiological diagnosis of meningitis. CSF C- reactive protein(CRP) levels can to be a rapid and simple method for specific diagnosis of meningitis.CSF CRP levels in meningitis are raised due to passive diffusion across the inflamed meninges. Normally CRP is present in trace amounts <0.5 mg /dl in the plasma and in negligible amounts in the CSF.

OBJECTIVES: To find out the correlation between cerebrospinal fluid C Reactive protein and bacterial meningitis in paediatric age group.

MATERIALS AND METHODS: Hospital based prospective observational study conducted in a tertiary care center in eastern India from April 2022 to March 2023. All paediatric patients admitted with clinical suspicion of meningitis in paediatric ward between the age of 1 month to 12 years who had clinical signs of meningeal irritation,raisedICT,encephalopathy were included in the study. CSF examination was done after parent's consent and send for protein and sugar, CSF cytology, CSF CRP,CSF culture sensitivity and gram staining .Data entered in a predesigned proforma and result analyzed.

RESULTS: A total of 123 children were included in the study. Most of the patients had bacterial meningitis(104; 84.55%). Rest was diagnosed others than meningitis . Majority of patients (46.15%) were from the age group of 1 month to 1 year with common presenting symptoms was fever (97; 93.26%) followed by altered sensorium (96; 92.30%), convulsion (93;89.42%) .Among 104 bacterial meningitis cases ,86 children (82.69%) had CSF CRP positivity with sensitivity 83%, specificity 84.21%, positive predictive value 96.62%, negative predictive value 47.05%.

CONCLUSION: Fever with altered sensorium ,seizures were the most common presenting features of bacterial meningitis in children .CRP estimation can be used as a bedside diagnostic tool in a cases of pyogenic meningitis as supportive evidence of bacterial meningitis with good sensitivity. Specificity with high positive predictive value.Exclusion of bacterial meningitis with only the conventional tests is difficult.Combined with careful physical examination and CSF analysis.CSF CRP measurement affords substantial aid.

A STUDY TO EVALUATE THE VACCINATION STATUS OF INDOOR ADMITTED PATIENTS AT DEPARTMENT OF PAEDIATRICS MEDICAL COLLEGE, KOLKATA

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Abstract:

Background: Immunisation is the need for child survival.It is one of the most cost-effective public health interventions and largely responsible for reduction of under-5 mortality rate. Despite all the possible efforts made by the MOHFW and GOI, there still remains a significant number of incompletely immunised and unimmunisedchildren,who are more to prone to suffer from vaccine preventable diseases leading to increased morbidity and mortality.

Objective: Evaluation of vaccination status of children admitted in department of paediatrics at Medical College Kolkata.

Materials and Methods: This is an Observational, study including 376 patients, admitted with different diseases. Duration of the study is 6 months. Data on immunisation status and associated factors has been collected at presentation, after seeking proper informed consent from parents/guardians, on pre-designed proforma. Data has been analyzed following standard statistical methods.

Results: We found that: (n=376)

Group A [Completely unimmunised= 63 (16%): Female- (9.8%); Male- (6.9%)].Group B [Partially unimmunised= 208 (55.3%): Female- (46.6%); Male- (53.4%)]. **Group C [Completely immunised= 105(27.9%): Female- (39%); Male- (60.9%)].**

Reasons of unimmunisation:- Deliveries at home, Lack of awareness, poor educational status, rural place of residence, low socioeconomic status of parents and acute illness of children. Incidence of recurrent respiratory tract infections, Acute Gastroenteritis, Frequent hospital admissions were found to be **82.5% in Group A, 77.4% in Group B and 26.7% in Group C.**

Conclusion: In this study, we intend to highlight these issues which will help in determining the factors that bars the UIP from reaching every children in the society. However, this is a single center study, further research is needed with bigger sample size.

Congenital High Airway Obstruction Syndrome (CHAOS)

This is a case report of preterm male child weighing 1.9 Kg, APGAR 2/10 -3/10 with tracheal stenosis , web or agenesis. Mother was taking phenytoin and on ANC showing oligohydramnios. It was done in 2nd trimester showing age 21 weeks 2 days with congenital high airway obstruction syndrome with enlarged hypoechoic lungs, compressed tubular heart and massive ascitis . This syndrome is associated with a poor prognosis . Baby was delivered via NVD with signs suggestive of fetal hydrops. Inspite of best efforts baby could not be saved.

Discussion

CHAOS is likely more common than reported, as many fetuses with CHAOS die in utero or are stillborn.

Currently, all viable patients with CHAOS are offered an EXIT delivery followed by surgical reconstruction surgery later on after 2 years of age. Outcomes may depend on other anomalies, as fetuses with CHAOS frequently have additional congenital abnormalities diagnosed postnatally.

In our case the mother ideally should have undergone MRI in 2nd trimester, followed by an EXIT procedure during delivery.

Conclusion

Early diagnosis, detailed fetal assessment and an adequate postnatal intervention for establishing the fetal airway are prerequisites for survival in CHAOS patients.

However due to limited resources and inadequate antenatal scans in our setup this is usually not possible.

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CLINICAL PROFILE AND OUTCOME OF CARBAPENEM RESISTANT ORGANISM (CRO) SEPSIS IN NEONATES ADMITTED IN TERTIARY CARE NICU

AFFILIATION – IQ CITY MEDICAL COLLEGE AND HOSPITAL, DURGAPUR, WEST BENGAL

Introduction:-

Carbapenems are broad spectrum, beta lactam antibiotics. Once considered as last resort for multi-drug resistant gram negative infections. Carbapenem resistant organism (CRO) are being increasingly identified in NICUs across India. Most of the CROs isolated in India are NDM type.

Hence, we planned this retrospective case control study to assess the risk factors, antibiotic susceptibility pattern and outcome of CRO sepsis in neonates.

OBJECTIVE :-

To evaluate risk factors, antibiotic susceptibility pattern and outcome for CRO sepsis in neonates.

METHOD:-

Type of study- Retrospective matched case control study

Duration of study- 2 years (January 2021 to December 2022)

Setting- NICU of Department of Pediatrics, IQ City Medical College and Hospital.

Study groups definitions:

1.Cases:

Blood culture positive gram negative sepsis which are resistant to meropenem.

2. Controls:

Blood culture positive gram negative sepsis which are susceptible to meropenem.

Inclusion criteria:

1.All term and preterm neonates with carbapenem resistant blood culture positive sepsis during the study period.

2.Carbapenem sensitive blood culture positive gram negative sepsis of matched gestational age.

Exclusion criteria:

1.Major lethal congenital malformations

Neonates with CRO sepsis (cases) were matched with carbapenem susceptible sepsis (controls) of gestational age within one week.BACTEC automated blood culture system was used for isolating the organisms.

RESULT

Our study showed Klebsiella pneumoniae as most common organism in both groups.

Incidence of CRO sepsis was 1.98%.

Colistin was most sensitive antibiotic for CRO sepsis.

CONCLUSION

Incidence of CRO sepsis was 1.98%

Most common organism was Klebsiella pneumoniae.

Three significant risk factors for CRO sepsis were prior surgery, parenteral nutrition and central line.

Neonates with CRO sepsis have more risk for developing meningitis.

KEYWORD- CRO, Carbapenem

DEMOGRAPHIC PROFILE AND OUTCOME OF VENTILATED NEONATES IN NICU IN A TERTIARY CARE HOSPITAL.

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BACKGROUND: Neonatal morbidity and mortality are major public health concerns worldwide. Advances in neonatal medicine have led to increased survival rates among preterm and critically ill neonates. However, this population remains at a high risk of adverse outcomes, making it essential to identify and address the factors that influence their health and survival. Ventilation is a common therapeutic intervention for neonates with respiratory distress syndrome (RDS), meconium aspiration syndrome (MAS), congenital diaphragmatic hernia (CDH), and various other respiratory conditions. Understanding the demographic profile and outcomes of ventilated neonates in NICUs can inform targeted interventions, resource allocation, and improved care strategies.

OBJECTIVES:

1.To describe the demographic profile of ventilated neonates in the NICU.

2.To assess the clinical outcomes, including mortality rates, morbidity, and neurodevelopmental outcomes, of ventilated neonates.

3.To identify factors associated with adverse outcomes and variations in neonatal care.

MATERIAL AND METHOD: This research has been employed as a retrospective cohort study design, analysing medical records and patient data from R.G.Kar Medical College and hospital's NICU over a period of September 2022 to august 2023. Demographic data, clinical parameters, and outcomes has been extracted and analysed. Statistical analyses, such as regression models, have been used to identify associations and predictors of adverse outcomes.

RESULTS: Over one year, 1,172 patients were admitted to the NICU, with 101 (8.6%) requiring mechanical ventilation. Notably, 42% were term, and 75% were low birth weight(birth weight less than 2500 gram). Primary reasons for ventilation included severe respiratory distress (34.6%) and Perinatal Asphyxia (17.8%). Common underlying causes were respiratory distress. Groups were categorized by indication: neurological (31.6%), respiratory (40.6%), cardiac (19.8%), and other (7.9%).

Table 1: duration of Mechanical Ventilation, Length of Stay and Mortality rate in NICU

Parameters	Group A N=32	Group B N=41	Group C N= 20	Group D N=8	p- value
Duration of MV in Days; median (range)	4 (1-40)	6 (1-21)	1.5 (1-13)	2 (1-6)	0.001
Duration of Inotropes in days; median (range)	3 (1-10)	4 (1-10)	1 (1-10)	5.5 (2-6)	0.177
LOS in NICU; median (range)	11 (1-60)	12 (1-75)	6 (1-35)	12.5 (2-19)	0.128
Mortality rate; n (%)	11 (28.2)	13 (13.3)	13 (33.3)	2 (5.1)	0.064

Table 2 : Demographic and clinical characteristics of neonates who received mechanical ventilation

Characteristics	Mechanically ventilated neonates Number (%)
Total	101
Term	42 (41.6)
Preterm	59 (58.4)
Birth weight >2.5 Kg	25 (24.7)
Birth weight <2.5 Kg	76 (75.2)
Aetiology of MV	
Neurological	30 (29.7)
Respiratory	28 (27.7)
Sepsis	28 (27.7)
cardiovascular	11 (10.9)
Co morbidities	68 (67.3)
Outcome	
Extubated	48 (47.5)
Death	39 (38.6)
LAMA	11 (10.9)
Complication	
Ventilator associated pneumonia	6 (5.9)
Upper lobe atelectasis	1 (0.9)
pneumothorax	3 (2.9)
Spontaneously extubated	1 (0.9)

Table 3: Indication of Mechanical Ventilation

Indications	Number (%)
Severe Respiratory distress	35 (34.6)
Perinatal asphyxia	18 (17.8)
Recurrent apnoea	14 (13.8)
Recurrent seizure	11 (10.9)
During surgery	7 (6.9)
Diaphragmatic hernia	5 (4.9)
Congenital heart disease	5 (4.9)
Shock	4(3.9)

CONCLUSION: Severe respiratory distress was the most common cause of MV. The disease pattern in preterm were RDS, apnea of prematurity, sepsis and in term were perinatal asphyxia, meconium aspiration syndrome, and sepsis. Ventilator associated pneumoniawas the most common complications in these patients.

THE RELATIONSHIPBETWEEN MATERNAL VITAMIN D DEFICIENCY AND LOW BIRTH WEIGHT NEONATES IN A TERTIARY CARE HOSPITAL

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BACKGROUND:Low birth weight (LBW) refers to term or preterm neonates with birth weight < 2500 gr. These neonates may be small for gestational age or have intrauterine growth restriction. Mortality rate in such neonates is 40 times more than those with normal weight. Some investigations highlighted the effect of micronutrients on birth weight. Vitamin D (vit D) has a key role in fetal growth by its interaction with parathyroid hormone and Ca2+ homeostasis. Studies confirmed that insufficient prenatal and postnatal levels of vit D have great effects on poor bone mineralization which have significant association with small for gestational age (SGA) births (3). SGA births are reported more frequent in pregnancies occurring in the winter with vit D deficiency (4).

High Prevalence of vit D deficiency (about a billion) has been seen among people all over the world.we were intended to compare the maternal vitamin D status between LBW and normal birth weight neonates.

OBJECTIVES:The aim of this study is to evaluate the relationship between maternal vitamin D status and neonate's birth weight.

Materials and methods: A cross-sectional, descriptive analytical study was carried out in the nursery ward of (CNMCH, KOLKATA) during one year (January 2022- January 2022). One hundred and two neonates were categorized into two groups, neonates with birth weight< 2500 gr (n=52) and neonates with birth weight>2500 gr (n = 50). Data regarding medical history, physical examination and anthropometric measurements of neonates were noted in a questionnaire. Birth time blood samples of their mothers were analysed for serum 25-(OH)-vitamin D by ELISA method. Maternal vitamin D status was compared in two groups.

Results: Mean maternal vitamin D (vit D) level was 31.46 nmol/L. Forty eight percent of mothers had vitamin D deficiency, 27.5% had vit D insufficiency and 24.5% were normal. Mean maternal vitamin D level of LBW neonates was lower than other group; 25.05 vs. 38.13 ($p = 0.001$). All mothers of neonates with head circumference ≤ 33 cm also had vitamin D deficiency ($p = 0.007$).

Conclusion: Maternal Vitamin D deficiency may increase the risk of low-birth-weight neonate and modifying maternal nutrition behaviour and their vit D level could be beneficial on pregnancy outcome.

VARIOUS PRESENTATION OF SCRUB TYPHUS- A CASE SERIES

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INTRODUCTION-Scrub Typhus is a mite born rickettsial zoonosis caused by Orientia tsutsugamushi.The thromboculid mite act as vector and disease transmit byto humans by chiggers.It presents with febrile illness with eschar and rash,but may sometimes presents with unusual manifestations.

CASE 1: A 8 years old girl presented with 10 days fever with abdominal distension,decrease urine for last 2 days.Scrub typhus IgM Positive,Urea 202,Creatinine 5.58.USG KUB renal parenchymal disease.Manage conservatively with Doxycycline.

DIAGNOSIS-Scrub Typhus with Acute Kidney Injury

CASE 2: A 9 years old girl presented with 2 weeks fever with maculopapular rash,non purulent conjunctivitis,pedal edema,unilateral lymphadenopathy.Scrub typhus IgM positive.Echocardiogram – LMCA diameter 3mm,RCA diameter 2.5mm,mild TR and MR.IVIG given at 2gram/kg with Doxycycline.

DIAGNOSIS-Scrub Typhus with Kawasaki phenotype.

CASE 3: A 10 years old girl presented with 9 days fever with jaundice,all viral marker negative but Scrub Typhus IgM positive.total bilirubin 4.8,conjugate 2.8,SGPT 120,SGOT 401.Doxycycline given

DIAGNOSIS-Scurb Typhus with Hepatitis.

CASE 4: A 10 years old girl presented with 12 days fever with headache,deviation of right sided eyeball medialy.Meningeal irritation with grade 3 papilledema,right lateral rectus palsy.Scrub typhus IgM POSITIVE.Improved by Doxycycline.

DIAGNOSIS-Scrub Typhus with Meningitis with Right lateral rectus palsy.

CONCLUSION-Fever with unusual presentation should check Scrub typhus for differentiate from other diffrential diagnosis.

CLINICAL SPECTRUM AND OUTCOME OF CARDIAC MANIFESTATIONS OF SCRUB TYPHUS INFECTIONS IN A TERTIARY CARE HOSPITAL IN WEST BENGAL

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Under the guidance of Dr. (Prof. and HOD) Nepal Chandra Mahapatra
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BACKGROUND: Scrub typhus, a rickettsial infection caused by Orientia Tsutsugamushi, is an emerging infectious disease in India. It has varied presentation. It is known that scrub typhus can cause myocardial dysfunction but the magnitude of involvement and the impact of myocardial dysfunction and injury on various outcomes are unknown.

OBJECTIVES:

1.To study the spectrum of cardiac manifestations in scrub typhus infection.

2. To evaluate the incidence of myocarditis

3. To compare the outcome of scrub typhus patients with and without myocarditis.

MATERIALS AND METHODS;This is a prospective cohort study in a tertiary care hospital where all patients (<12 years) with acute febrile illness and a clinical syndrome suggestive of scrub typhus infection and fulfilling the diagnostic criteria were recruited. A diagnosis of myocarditis was considered in patients with myocardial injury (Trop-T positive) with coexisting myocardial dysfunction (left ventricular ejection fraction less than 50%).

RESULTS AND CONCLUSION: This prospective cohort study was conducted over a period of 24 months. The study cohort comprised of 26 patients.

-The prevalence of myocarditis was 21.8%.

- Myocardial dysfunction seen in 30%

-Myocardial injury seen in 60.7%

- The prevalence of diastolic dysfunction was observed in 17%

-Pericardial involvement was seen in 51%

-The development of myocarditis increased the need for ventilation, prolonged the duration of ICU and hospital stay

- Myocarditis was not associated with worse mortality in our cohort.

- ionotrope support was required in 20% cases, whereas rest of the patients were treated with inj. Doxycycline only

Keywords: scrub typhus. Myocarditis

A CROSS SECTIONAL PROSPECTIVE STUDY FOR QUANTITATION OF PROTEINURIA IN NEPHROTIC SYNDROME BY SPOT URINE PROTEIN CREATININE RATIO ESTIMATION IN CHILDREN

DrAshalataMondal[1](Presenting author) , Dr Arnab Biswas[2]
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Introduction

Proteinuria is a major determinant of progression of Renal diseases.In Nephrotic syndrome, the amount of protein excretion is a reflection of activity of disease.Quantitative measurement of proteinuria by a 24 hour urine collection has been the accepted method ofevaluation.Recent studies have shown that calculation of protein/creatinine ratio in a spot urine sample correlates well with the 24 hour urine protein(24 HUP)excretion

Objective-

Totest the accuracy & acceptability of spot urinary protein/creatinine ratio(P/C ratio) and urinary dipstick with the 24 hour urine protein as a method of quantitation of proteinuria.

Method-

Forty six samples from 23 patients of nephrotic syndrome collected.This included a 24 hour urine sample followed by the next voided random spot sample.The protein/creatinine ratio was calculated and dipstick was performed on the spot sample.This was compared with the 24 hour urine protein excretion.

Result-

The correlation between the three samples was statistically highly significant ($p<0.001$) for all levels of proteinuria.The normal value of protein/creatinine ratio in Indian children was also estimated on 60 normal children admitted in the ward without any renal diseases calculated to be 0.053(SE of mean +-0.003).

Conclusion-

Protein/creatinine ratio correlates well with urine dipstick in a spot sample and the 24 hour urinary excretion of protein irrespective of the degree of proteinuria.Dipstick test has the advantage of giving an instant result.however protein/creatinine ratio which is a quantitative test would be useful additionally in monitoring progression of renal disease.

A single center study of clinical features and outcomes of pediatric adenovirus infections with secondary HLH - a case series

Dr Nilabza Ray
RKM Seva Pratisthan

Introduction:

Human adenovirus infections in children are mostly self-limited, affecting respiratory, gastrointestinal tracts and conjunctiva. However, rarely the clinical course is aggressive even in immunocompetent hosts and may be complicated by reactive HLH leading to increased morbidity, mortality and residual damage. We hereby report a case series of 11 children with adenovirus infection and reactive HLH admitted during the ongoing outbreak.

Methods:

We retrospectively collected data of pediatric inpatients between 1 month to 18 years admitted in our institute in between January to April 2023 with Adenovirus infection proven by PCR test of nasopharyngeal swab who showed features of reactive HLH as diagnosed using H score. We analysed clinical and laboratory features along with mortality outcomes of these children.

Results:

Eleven children conformed to reactive HLH criteria by H score. Of these 8 required PICU admission, 5 were mechanically ventilated, 3 were managed by NIV. They were treated with dexamethasone (7), pulse methylprednisolone (2) and IVIg (2). One child did not require HLH specific therapy. Liver failure was noted in 6 patients. 3 had hepatic encephalopathy and 1 had hepatorenal syndrome. Outcome was unknown in one child who was transferred to a higher center. Even though organ dysfunction attributable to HLH improved with therapy in 10/11 patients, mortality occurred in 3 children with a prolonged course complicated by secondary infection and cryptogenic organising pneumonia.

Conclusion:

Reactive HLH is a rare but serious complication of Adenovirus infection and must be suspected in any child with a prolonged course, cytopenias and organomegaly.

A PROSPECTIVE STUDY ON CLINICAL PROFILE AND OUTCOME OF POISONOUS SNAKE BITE CASES IN PEDIATRIC AGE GROUP (1TO 12 YRS)ADMITTED IN PICU OF A TERTIATRY CARE INSTITUTE OF WEST BENGAL.

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Background: As Burdwan Medical College caters a large rural population, so we found many complicated snake bite cases in our hospital specially during monsoon, with many of them coming late after bite.

Objectives: Objective of the study was to evaluate the complicated snake bite cases needed PICU admission from clinical presentation to outcome.

Materialand Methods: This prospective study was conducted among 50 children between 1 to 12 years age admitted in PICU with clinical signs, symptoms of snake envenomation with or without having bite mark. Patients with dry bite by poisonous snake or bite by non-poisonous snake and who had clinical features of envenomation due to other poisonous creature were excluded from the study. Their clinical presentation, hospital course, complications and outcome were studied.

Results: Out of 50 PICU admission 24 (48%) cases were vasculotoxic and 26 (52%) cases were neurotoxic snake bite. Among 50 cases, 12 (24 %) reached hospital after 12hrs of snake bite and 9 (18%) cases received ASV after 12 hrs of envenomation. Among 26 neurotoxic bite, 10 (38.5%) cases developed type 2 respiratory failure and needed mechanical ventilation and 7 (26.9%) out of them extubated successfully. Among 24 vasculotoxic bite, 15 (62.5%) developed acute kidney injury requiring hemodialysis with 14 (58.3%) survived among them. 4 out of 50 (8%) cases died.

Conclusion: Awareness for early referral and shift to PICU with zero tolerance after poisonous snake bite is the key to prevent complications like respiratory and renal failure and mortality in a totally treatable disease.

Impact of Nutritional Status of Children Admitted in PICU on Mortality and Morbidity: A Prospective Observational Study

Dr Vikas K V
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Background: Poor nutritional status is one of the major causes of mortality and morbidity of children in our country. Though multifactorial in origin, appropriate measures can alter the disease course in these children. Previous studies have shown that children admitted in the PICU had poorer nutritional status when compared with general population.

Objectives: Anthropometry is a routine and simple procedure to assess the nutritional status of a child. We aimed to study the impact nutritional status has on the mortality and morbidity of children admitted in the paediatric intensive care unit (PICU) in a tertiary care hospital in Eastern India.

Materials and Methods: We performed a prospective observational study to assess the relation between anthropometric measurements of children on admission in PICU and their outcomes in terms of mortality and morbidities (total stay in PICU, duration of mechanical ventilation, requirement of inotrope, delay in enteral nutrition, and total duration of enteral feeding).

Results: Sixty children were included out of which 45 were under 5 years of age and 15 were more than 5 years of age. Children under 5 years with normal weight for age, weight for height, and mid-upper arm circumference had higher chances of survival. Similarly, in children >5 years of age, those with weight for age and body mass index for age in 25th–50th percentile had higher chances of survival. All these associations were statistically significant. On further analysis, these anthropometric measurements that affected mortality also influenced morbidities significantly.

Conclusion: Children with inadequate nutritional status as assessed by anthropometry had statistically significant higher mortality and morbidity in the PICU. Thus nutritional status of a child on admission is an important factor to prognosticate the outcome of a child in PICU.

Role of NT-pro BNP level as predictor of severity ofacute myocarditis in children

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Professor Dr Mihir Sarkar [Guide, PICU incharge, Dept. of Pediatrics, Medical College Kolkata]

Background: Acute Myocarditis has the potential for significant morbidity including diminished cardiac function and cardiac failure, occasionally necessitating aggressive circulatory support. NT-proBNP, a marker of wall stretch may be elevated in many conditions like heart failure, acute coronary syndrome, may also play a role in myocarditis.

Objective: To evaluate the prognostic yield of NT-proBNP in acute myocarditis in paediatric patients admitted in the PICU of a tertiary care hospital.

Materials and Methods: A prospective observational study was conducted among children aged from 1 months to 12 years admitted in the PICU with clinical diagnosis of Acute Myocarditis. The total study duration was 12 months (august 2022–august 2023). Expected study population was 47. NT-proBNP level was measured. Echocardiography done on admission and repeated on discharge. Inotropes required during PICU stay were documented.

Results: Area under ROC curve is 0.966 & p value is 0.001.patients with initial NT-Pro BNP upto 929 pg/ml were grouped as A and >929 pg/ml were grouped as B. In group A 30% required >5 days of ventilation whereas in group B 51% required the same.In group A 80% patients survived whereas in group B 68% survived. In group A there was 20% of mortality where as in group B it was 35%.

Conclusion: Higher value of NT-Pro BNP(>929 pg/ml) is associated with more inotropes requirement, more duration of ventilatory support, poor survival. So NT-Pro BNP can be used as predictor of disease severity & outcome in Acute myocarditis.

Outbreak Analysis of Meningococcal Meningitis- A Case Series from a Tertiary Care Hospital in Eastern India.

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Background: In a span of four months, there were 7 cases of meningococcal meningitis who presented with diagnostic dilemma and also a few atypical manifestations.

Methods: A retrospective data analysis carried out in children diagnosed with meningococcal meningitis who were admitted from October 2022 to January 2023.

Results: There were 7 confirmed cases of *Neisseria meningitidis* infections during the study period. The median age of presentation was 6 years (range: 4.5 months-9 years) with four males and three females. All the children presented with fever but none had signs of meningeal irritation as such. Routine blood and CSF analysis were also near normal. Reverse transcriptase polymerase chain reaction (RT-PCR) for *N. meningitidis* was positive in the cerebrospinal fluid (CSF) samples of all the seven cases.All of the patients recovered completely except there was residue of neurodeficitin one patient.

Conclusion: In endemic areas, paediatricians should have a low threshold of suspicion for Neisseria meningitidis in children presenting with signs and symptoms involving the central nervous system and consider an RTPCR of the CSF sample even if routine blood and CSF studies are near normal.

CYTOKINE RELEASE SYNDROME IN CHILDREN WITH VIRAL LOWER RESPIRATORY TRACT INFECTIONSAT A TERTIARY CARE CENTER IN EASTERN INDIA: RESTROSPECTIVE OBSERVATIONAL STUDY.

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PURPOSE:Infection as a cause of hypercytokinemia is now increasingly seen. In the recent upsurge of viral lower respiratory tract infections (LRTI), especiallyadenovirus, many patients were noted to suffer from CRS. Not all satisfied the HLH 2004 criteria but required anti-inflammatory therapies. With no available guidelines we intend to describe our experience in such patients.METHODS: Retrospective observational study on children withCRS due to viral LRTI, admitted from January 2023 to March 2023, at Institute of Child Health, Kolkata. CRS was diagnosed on basis of continuous fever, multisystem involvement, falling platelets, transaminitis and elevated ferritinwith negative cultures.

RESULTS :20patients were included. 14 had Adeno virus, 1 for human metapneumovirus and 1 Corona 229e. 13 were males, 7 were females. All had continuous fever, 17 had tachypnoea, 17had CNS involvement (irritability, lethargy or seizures), 15 had oedema, 19 had hepatomegaly and 9 had splenomegaly. The median age was 36 months, median day of fever at admission was 4 days,median day of fever at diagnosis was 13 days. Median investigations at diagnosis was Hb 9.15 mg/dl, total leukocyte count 4490/cmm, absolute neutrophil count 2088, platelet 1.15 lakhs/cmm, CRP 27.6 mg/L, SGOT 116.5 U/l, Albumin 3.05g/l,Ferritin 2954 ng/ml, triglyceride 162mg/dl. CRP was noted to be normal at diagnosis in 7 patients. 18 patients received intravenous dexamethasone, 1 hydrocortisone and 1 required no intervention.Fever was the first to respond to therapy. Encephalopathy and oedema subsided 4 to 5 days after initiation of therapy.

CONCLUSION: High degree of suspicion is required to diagnose CRS. Criteria of HLH-2004 maybe not fulfilled.Multisystem involvement, trends in cytopenia with rising ferritin,transaminitis and fall in albumin helps in early identification. CRP may not always be raised. Early identification and initiation of immunosuppression is the key to a successful outcome.

AIMS AND OBJECTIVES:

To note the demographic profile, clinical features, laboratory investigations, therapy and outcome of CRS due to viral LRTI.

CASE SERIES ON CNS PRESENTATIONS OF CHILDREN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Introduction : CNS manifestation of easily is a very complicated and prognostically poor outcome of the disease sequel if not treated early and aggressively.

Case series :

Case 1 - 13 year old female child was admitted with headache, involuntary hand movement with altered sensorium for 2 days. Past history showed child suffering from nanscarring alopecia for last 2 years, developing fatigubility, hypothyroidism, menorrhagia in recent time. By clinical and lab investigation, SLE was diagnosed ; MR angiogram revealed right MCA vasculitis with brain infarct. The child was treated with pulse methylprednisolone,Cyclophosphamide, Rituximab injection followed by improvement of power of limbs.

Case 2 - 14 years old female child was admitted with headache, apthy, nominal aphasia since 2 weeks in a known casecof Lupus nephritis complicated with ischemic optic neuropathy. By recent evaluation, subacute infarct in temporal lobe was found with low C3, C4. In this relapse of CNS lupus, pulse methylprednisolone, rituximab injection was used with increased dose of Mycophenolatemofetil.

Case 3 - A 14 year old female child was admitted with acive GTCS, altered sensorium for last 1 week with cachectic appearance & bilateral cervico-axillary lymphadenopathy. Previously treated with Anti - TB medication by clinical suspicion. Now, patient was diagnosed as SLE with CNS affection with low C3,C4, ANA, antids-DNA and APLA positive status. She was treated with Pulse Methylprednisolone, Inj. Cyclophosphamide and Inj. Rituximab.

Conclusion :

1. CNS manifestation of SLE should be managed aggressively.
2. Non-scarring alopecia may be initial symptom.
3. Vasculitis causing brain ischemia is found as most common pathophysiology behind cns symptoms.

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DIVERSE ETIOLOGY OF PEDIATRIC HEMATURIA: A 3 CASE SERIES

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Background:

Pediatric hematuria, characterized by the presence of blood in the urine, demands a thorough investigation due to its varied etiologies. Common causes encompass urinary tract infections, trauma, and nephrolithiasis, while less frequent but crucial contributors include autoimmune disorders and exertional rhabdomyolysis. This case series sheds light on three distinctive cases illustrating the diverse spectrum of pediatric hematuria etiologies.

Case 1: Hematuria due to SLE:

A 9-year-old female presented with recurrent episodes of gross hematuria, accompanied by fatigue and joint pain. Laboratory investigations revealed elevated anti-nuclear antibodies and decreased complement levels, leading to a diagnosis of SLE-associated glomerulonephritis. This case underscores the importance of considering autoimmune disorders in pediatric hematuria evaluations.

Case 2: Hematuria secondary to Rhabdomyolysis:

A 12-year-old male athlete presented with hematuria following an intense physical training session. Further assessment revealed elevated creatine kinase levels and myoglobinuria, indicative of exertional rhabdomyolysis. This case highlights the potential link between strenuous exercise and hematuria in pediatric populations.

Case 3: Hematuria associated with UTI:

A 6-year-old female presented with fever and hematuria. Urinalysis confirmed a urinary tract infection caused by Escherichia coli. Early identification and treatment of the infection resolved hematuria, emphasizing the importance of recognizing common causes such as UTIs in pediatric patients with hematuria.

Conclusion:

This case series emphasizes the diverse etiologies of pediatric hematuria, including autoimmune disorders, exercise-induced rhabdomyolysis, and infectious causes. A comprehensive approach to evaluation, considering both common and rare conditions, is essential for accurate diagnosis and appropriate management in pediatric patients presenting with hematuria.

Blood lactate level at the time of admission to PICU as a predictor of mortality in paediatric septic shock patients

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Background : Lactate levels are helpful in monitoring conditions involving inadequate delivery of oxygen to the tissues, such as sepsis. hyperlactatemia is very common in patients with sepsis and septic shock. Lactate can be used as a predictor of mortality in paediatric septic shock patients.

Objective: to determine the serum lactate level at the time of admission as a predictor of mortality in paediatric septic shock patients and to establish lactate as a prognostic marker.

Materials and Methods: this was a retrospective study on 48 children admitted at PICU who were diagnosed clinically as septic shock patients. All clinical and lab data recorded on predesigned prevalidated proforma. PRISM 3 score were calculated to determine mortality risk. Correlation between blood lactate at admission and mortality analysed. Data analysed using standard statistical method.

Results : blood lactate level at the time of admission was significantly high in non survivors. A lactate value of more than 8mmol/L at the time of PICU admission had an odd ratio for death of 14.6 with a positive predictive value of 72.73% and negative predictive value of 84.62%. sensitivity and specificity have been found to be 80% and 78.57% respectively. PRISM 3 score were higher in non survivors compared to survivors.

Conclusions: non survivors had higher blood lactate levels at admission. A lactate value of more than 8 mmol/L at admission was a good predictor of death.

THROMBOSIS WITH MULTIPLE CORONARY ANEURYSMS IN INFANTILE KAWASAKI DISEASE: A Case Series

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BACKGROUND

Kawasaki disease is an acute vasculitis of childhood that leads to coronary artery aneurysms in 25% of untreated cases. This is a case series of 4 infants diagnosed with Kawasaki Disease with multiple coronary aneursyms& thrombus .

CASE1= 3 months old with fever for 26 days, with features of complete KD.Echocardiography- LAD aneurysm with thrombus,LMCA aneurysm & RCA dilatation, Treatment- Infliximab ,IVIG,steroids, ecospirin, LMWH . Thrombus peristed on day7 echocardiography,hence cyclosporine,clopidogrel were started. 4 weeks echo showed resolution of previous thrombus.

CASE2=2months old boy with fever for 15 days,thrombocytosis, aneurysms involving all major coronaries, thrombus in LAD diagnosed as incomplete KD.IVIG,aspirin, LMWH, infliximab ,warfarin were given. Echocardiography showed dissolution of the clot.At 5 years , giant aneurysm of LAD persisted.

CASE3=10 months old girl with day 16 of fever, echo showed aneurysm in LMCA, RCA, LAD with clot ,diagnosed with complete KD, treated with IVIG, steroids, heparin , alteplase. During alteplase infusion baby died from myocardial infarction.

CASE4=6 weeks old baby with fever for 2 days, presented with KD shock . Echocardiography showed LAD aneurysm , LMCA,RCA ectasia. Treated by IVIG,Infliximab. Echo later on showed regression in size of CAAs, with thrombus in LAD, obstructing the lumen, LMWH was initiated. Echo after 7 days showed dissolution ofclot.Child had regression of aneurysms by 2 years of age.

RESULTS

4 babies had coronary thrombus during diagnosis. Thrombolysis was successful in 3,One patient died, two of them continued to have persistent aneurysms.

THE CLINICAL PROFILE AND ETIOLOGICAL CLASSIFICATION OF CHILDREN WITH PRECOCIOUS PUBERTY AT A TERTIARY CARE CHILDREN'S HOSPITAL

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Abstract

Background- Precocious puberty is onset of secondary sexual characters at an age which is less than 2-2.5 SD below the mean age. It may point to an underlying serious etiology and thus needs prompt evaluation and management.

Objectives- To assess the clinical profile and etiology of children with precocious puberty.

Material and Methods- It is a retrospective review of the children who presented with precocious puberty from November 2022 to October 2023 at the Institute of Child Health, Kolkata. Boys and girls of age less than eight and nine years respectively were included. Detailed history and examination including anthropometry and Tanner staging were done along with bone age, LH, FSH, DHEAS, thyroid function test, 17-OH progesterone levels in all the participants and testosterone in boys and estradiol in girls.

Results- Total 24 cases with 16 females were reported. Central precocious puberty (CPP) constituted 70.83% (17/24) and was found to be more prevalent in females (13/17). The most common etiology of CPP was idiopathic (47.06%) followed by Hypothalamic hamartoma (29.41%), craniophyaryngioma (17.64%) and medulloblastoma (5.88%). Peripheral Precocious Puberty (PPP) was found in 29.16% (7/24) patients with male predominance (4/7) and congenital adrenal hyperplasia and McCune Albright Syndrome (28.57%) being the most common etiologies, followed by Hypothyroidism, Adrenocortical tumor and Testosterone secreting tumor (14.28%).

Conclusion- The results of our study are consistent to those of other studies done in this subject. This domain is a neglected area and our study can be extrapolated to the whole population to serve as a guide for practicing paediatricians.

Keywords-Precocious puberty, Central precocious puberty, Peripheral precocious puberty

A RETROSPECTIVE STUDY ON CLINICOPATHOLOGICAL PROFILE OF INCOMPLETE KAWASAKI DISEASE

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BACKGROUND:
Kawasaki disease (KD) is predominantly seen in children <5years of age
Children with incomplete KD have fever and <4 classic clinical findings of KD often leading to delayed diagnosis,late initiation of IVIG can increase risk of CAA.

AIMS AND OBJECTIVES: To evaluate clinicopathological profile of children with incomplete KD and to compare with children of complete KD.

MATERIALS & METHODS:
Retrospective observational study done at ICH Kolkata on children diagnosed with Kawasaki disease according to AHA 2017 criteria from January 2020 to August 2023.

RESULTS:
106patients were diagnosed with KD from January2020 to august2023 of which 101 patients were included in this study. 53% had incomplete KD with median age of 15months , 20/101 were females and 34/101 were males diagnosed with incomplete KD.

	INCOMPLETE KD(N=54)	COMPLETE KD(N=47)
Median age(months)	15	18
%of infants	43	38
Male(%)	63	77
Female(%)	36	23
Median duration of fever prior to admission(days)	7	6
Median duration from admission to diagnosis(days)	1	1
Investigations(median)		
Hb(gm/dl)	9.6	9.1
TLC(/mm3)	17530	18000
Neutrophil(%)	59	69
Platelets(lakh/mm3)	4,90,000	4,20,000
CRP(mg/L)	85	130.5
SGPT(IU/ml)	25	33
Albumin(gm/dl)	3.5	3.1
Small aneurysm(%)	20(11patient)	21(10pts)
Medium aneurysm(%)	14.8(8pts)	11(5pts)
Giant aneurysm(%)	1.85(1pts)	2.1(1pts)
Multiple aneurysm(%)	20(11pts)	21(10pts)
Thrombus(%)	3.9	
IVIG resistance(%)	7.4	23
Aneurysms at presentation(%)	35	34
BCG reactivation	5	10

CONCLUSION:
Patients with incomplete KD comprised half of the total number of KD patients. Infantile onset of disease had predominantly incomplete presentation,however no significant difference was found in incidence of CAA as compared to complete KD.

CLINICO-ETIOLOGICAL PROFILE & OUTCOME OF CHILDREN ADMITTED WITH EMPYEMA THORACICSFOLLOWING RECENT ADENOVIRAL OUTBREAK IN A TERTIARY CARE CENTRE IN EAST INDIA

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BACKGROUND:Incidence of pneumococcal-related empyema is expected to decline since introduction of vaccine. But other pathogens, like viruses, may therefore become relatively more important causes of empyema in children.

OBJECTIVES: To determine demographic variables, clinical manifestation, bio-chemical profile of pleural fluid, aetiology, management (medical/surgical) and complications of children with empyema.

MATERIALS & METHODS: Descriptive, Observational study. Medical records of admitted children aged >one month to 12 years with discharge diagnosis of empyema (January2023 – April2023) and data was collected on demographic features, clinical manifestation, management and complications.

RESULTS: Among 33 patients, 11(33%) younger than 5 years and 24(72%) belongs to lower socio-economic background, Right thorax more affected(n=19, 58%) than left(n=11,33%) whereas bi-lateral in 3(9%) cases, Male (n=25, 76%)predominant. 12(36%) children found partially vaccinated and6(18%) were malnourished.Dyspnea(n=31, 93%),fever(n=30, 90%),cough(n=24, 73%) were the major presenting symptoms. 28(85%) were onantibiotics prior-to admission. Adenovirus, commonestorganism(n=18,55%)and pleural-fluid culture reveals no bacterial growth except 1 case(3%) of Staphylococcal growth and 2(6%) cases came CBNAAT positive. Pleural fluid cytology shows predominant Neutrophilic-leucocytosis(n=30,90%). Majority of children required surgical intervention (n=29, 88%) like Intercostal drainage, Pig-tail-Catheterization,Pericardiocentesis,Decortication, Lobectomy. Pneumothorax(n=9,27%), Collapse(n=4,12%),bronchopleural-fistula(n=1,3%) most common complication during admission period.

CONCLUSION:Following recent most adenoviral outbreak, we found cases where no other pathogens were identified except association of viruses like adeno, COVID, influenza, parainfluenza, metapneumovirus in oro-nasopharyngeal swab. Younger, underweight and malnourished children with prolonged fever more prone to complication.Early identification, empiric antibiotic, early referral to tertiary centre, proper health-education of parents and post-procedural early initiation of pulmonary physiotherapy are essential to prevent short and long-term complications.

Multifaceted presentation of Scrub Typhus Fever: A case seriesfrom A Tertiary Care Centre from Northen part of West Bengal.

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Background

Scrub typhus fever is one of the most common tropical feverin northern region of west bengal.It is caused by orienta tsutsugamushi, a gramnegative bacillus and transmitted to humans by bite of an infected leptothrombiduim mite,causes endothelium dysfunction resulting widespread vasculitis,may lead to multiorgan involvements.

Objectives

To study the atypical presentation of Scrub Typhus fever in paediatrics age group admitted in a tertiary care hospital in Northen part ofWest Bengal.

Methods

Total145 cases of Scrub typhus fever,registered between May to November, 2023 in the Department of Paediatrics in Malda Medical College and Hospital, Malda, West Bengal. Among them 20 cases were atypically presented with life threatening multiorgan dysfunction.

Results

20 children (12boys, 8girls,mean age-5 years 6 months) had severe multiorgan dysfunction.One child was only 5 months old. All children had fever more than 5 days and confirmed on all cases by using positive qualitative IGM ELISA assay.Characteristic lesion of eschar was notedin 3 cases. Hepatitis(5/20), Meningoencephalitis (10/20),acalculous cholecystitis(1/20),Third space fluid loss (15/20),Mucosal involvement (7/20), extremity changes (4/20), hepatosplenomegaly (11/20) and cervical lymphadenopathy (3/20),macular-erythmatous rash(6/20),dengue(8/20),pancytopenia (3/20),Myocarditis(2/20), Acute kideney injury(1/20) were associated with other one or more common clinical features like vomiting, abdominal pain, headache ,respiratory difficulty,cough,edema, facial puffiness etc.

12 cases among themwere shifted to PICUand died one (1/20) and rest were discharged successfully (19/20).

Conclusion

Scrub Typhus fever is an acute febrile illness which is most common in our centre and early diagnosis,prompt treatment are crucial in managing this fever.Since the symptoms of many infections may overlap with one another and with severe bacterial sepsis, it may be very difficult to identify these infections at the time of presentation. Yet, most of the time, empiric therapy needs to be initiated at the outset to reduce the mortality and morbidity.

Cardiac involvement in children admitted with scrub typhus infection in a tertiary care hospital in Eastern India

Dr Meghana Pal

Background

Scrub typhus, a vector borne zoonosis caused by Orientia tsutsugamushi is endemic in the "Tsutsugamushi triangle".In children the disease may vary from a mild form to a severe form with multiple organ dysfunction including myocarditis and myocardial dysfunction.

Objectives

To study the cardiac involvement inchildren admitted with scrub typhus infection and assess its relationship to outcomes.

Materials and methods

The Scrub IgM positive children were clinically evaluated in detail including haemodynamic state (present or absence of hypotension and features of shock) and data was collected for demographic profile, duration of fever, routine laboratory investigations, inflammatory markers, and outcome. Additionally, they were investigated for the presence of myocardial injury and echocardiography was done.Myocarditis was diagnosed when myocardial injury was associated with global LV dysfunction.

Results

85 patients were recruited in my study where females outnumbered males by 1.3: 1. Mean age was 4.85 years with mean duration of fever was 6.6 days. Hypotension/ shock was found in 40% of cases and evidence of myocarditis in 20%.

Comparison between groups with and without myocarditis:

	Myocarditis	Non-myocarditis	P value	Odds ratio
Age mean (range) in years	3.17 (0.5-8)	5.27 (0.4-12)	0.081	
Mean duration of fever (in days)	6.6	6.6	0.712	
Mean hospital stay (in days)	14.8	9.4	0.002	
Number of death (in %)	1 (5.9%)	2 (2.9%)	0.56	2.06
Number of patients with comorbidities (%)	4 (23.5%)	18 (26.4%)	0.8	0.85
Mean duration of PICU stay in days	8	2.1	0.0002	
Number of patients required ionotropic agent	17 (100%)	17 (25%)	<0.0001	infinity
Requiring ventilatory support	7(41.1%)	9(13.2%)	0.009	4.59

CLINICAL PROFILE OF RSV INFECTED PICU ADMITTED CHILDREN AND PREDICTOR OF SEVERITY

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Background: Respiratory viral infections is found to be the leading cause of hospitalization in infants and young children worldwide and second leading cause of infant mortality.Respiratory Syncytial Virus (RSV) represents the main cause of lower respiratory tract infections (LRTIs) in young children worldwide.RSV manifestation can range from mild upper respiratory infections to severe respiratory infections mainly bronchiolitis and pneumonia, leading to hospitalization, serious complications (such as respiratory failure), and relevant sequalae in childhood and adulthood (wheezing, asthma, and hyperreactive airways).

Objective: This study was aimed to assess the severity, clinical course, and outcome of RSV-infected children admitted in paediatric intensive care unit and to predict the chances of development of acute respiratory distress syndrome (ARDS).

Material and Methods: This is a retrospective study which included children below 5 years with influenza-like illness (ILI) due to RSV. The clinical, laboratory, treatment and outcome-related parameters were assessed and compared between ARDS and non- ARDS group.

Results: Out of 54 ILI patients, 36 had RSV infection.Most of them (85.6%) were infants.Twenty- four (56.2%) patients developed ARDS and ten (26%) were ventilated.Infants below 6 months, low birth weight (LBW) babies, consolidations (

CASE SERIES ON UNUSUAL PRESENTATIONSOFCHILDREN WITH JUVENILE DERMATOMYOSITIS

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Introduction: Juvenile dermatomyositis is characterised by proximal muscle weakness, cutaneous manifestations. This is a case series of 3 children with JDMhaving atypical presentations.

CASE1:6 year oldgirl diagnosed as JDM. On examinationhad pallor, bilateral pedal edema,**hypertension, cardiac tamponade,**proximal muscle weakness,lipoatrophy, acanthosis nigricans over bilateral axillae.Hb 6.5 gm/dl,MRI thigh-inflammatory myositis. Treated with pulse methyl prednisolone,methotrexate,antihypertensives

CASE 2:A 3 year old girl with**generalised edema**and reduced physical activity. Child underwent intra cardiac repair for VSD with PS in past. On examination child had mild proximal weakness, with taut biceps and triceps tendons .MRI of thigh muscles - inflammatory myositis. Treated with pulse methyl prednisolone ,inj methotrexate , oedema subsided ,muscle strength improved.

CASE 3: 1 year girl presented with fever for 6 weeks, lethargy with **discoid rash** over bilateral malar prominence, ear lobe, proximal muscle weakness in bothlegs .CXRshowed **left sided pleural effusion**.Initial investigations for infective etiology, early onset lupus were negative. Muscle enzymes were high, MRI thigh - inflammatory myopathy. She acquired an adenovirus infection ,furtherrespiratory failure requiring ventilation.Low dose i.v methyl prednisolone, cyclosporine & Cidofovir were started. Later on she developedvasculitis over toes andinj cyclophosphamide was given but childsuccumbed to death due to septic shock.

Conclusion

JDM can have various uncommon presentations involving multipleorgan systems like cardiovascular, GIT, respiratory systems.Early diagnosis and immunosuppresive therapy is pivotal.

INFANTILE KAWASAKI DISEASE : A DISTINCT ENTITY ?

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Priyankar Pal (Prof and HOD of Pediatric Rheumatology)
Departmnet of Pediatric Rheumatology , Institute of Child Health ,Kolkata

BACKGROUND:

Kawasaki Disease(KD) is predominantly seen in children less than five years and diagnosis is clinical. Infants have incomplete presentations often leading to delay in diagnosis and higher incidence of coronary aneurysms.

METHODS

This is a retrospective, analytical study in infants with KD defined as per the AHA guidelines, at Institute of Child Health Kolkata from January 2018 to September 2022.

RESULT

136 patients were diagnosed as KD , 29(21%) being infants. Median age of the infants was 180 days (IQR 160), 15 were less 6 months and 14 more than 6months. 15 were males and 14 were females. 76% (n=22) of infants presented as incomplete KD. Fever of more than 5 days in 86%, mucositis in 62%, conjunctivitis in 62%, rashes in 55%, unilateral lymphadenopathy in 45%, and dorsal oedema of extremities in 45%. Mean hemoglobin was 8.8 6gm/dl , TLC 21522/cmm, ANC 9920, platelets 653000/cmm, CRP 137.83 mg/L.

IVIG was given to all. 10% (n=3) were resistant to IVIG and were given infliximab (IFX). 12 (41.4%) babies had coronary artery aneurysms (CAA) at diagnosis. One 2 months old baby with late diagnosis after 3 weeks had multiple giant aneurysms with large thrombus in LAD, was IVIG resistant and needed thrombolysis. 4/5 of patients with moderate CAA at diagnosis received additional IFX and 1 received steroids.

CONCLUSION

Compared to our overall data on KD, those presenting in infancy had more incomplete presentations (76% vs 20%), with consequent late diagnosis (day 11 vs day 7) and higher incidence of CAAs (41.4% vs. 22%).

CLINICOBIOCHEMICAL PROFILE OF CHILDREN WITH OBESITY DURING THE POST-COVID ERA--- A CROSS SECTIONAL STUDY IN A TERTIARY CARE HOSPITAL

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Abstract:

Background- Over the previous decades, an increase in the prevalence of childhood obesity has been reported in developed and developing countries, which has been perpetuated with the arrival of COVID-19.

Objectives- To analyse the clinical and biochemical parameters of obese/overweight children presenting after the COVID-19 pandemic and to evaluate the prevalence of metabolic syndrome.

Materials- A cross sectional study was conducted at the Institute of Child Health, Kolkata from August 2021 to October 2023. Children aged 5 to 18 years who had a BMI of greater than 23 Adult Equivalents (AE) according to the IAP chart were included. Weight, height, waist circumference and blood pressure were recorded. Morning fasting blood samples were taken for Fasting blood glucose (FBG), high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), and triglycerides (TG) along with Abdominal ultrasound.

Results-Total sample size was 798. 5.01% children were found to be overweight while 94.98% were obese. 20.8% children had hypertriglyceridemia, 43.23% had decreased HDL-C, 9.52% had increased FBG, 9.15% had hypercholesterolemia and 9.77% had increased LDL-C levels. 28.94% participants had features of fatty liver. Metabolic syndrome was present in 21.8%.

Conclusion- In our study the prevalence of MS was found similar to other studies. The most prevalent component was decreased HDL-C which was seen in 43.23% of the participants. The study aims to increase awareness regarding rise in obesity during and after the pandemic.

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AN OBSERVATIONAL STUDY OF CHILDREN WITH SEVEREGASTROINTESTINAL MANIFESTATIONS IN HENOCH SCHONLEIN PURPURA TREATED WITH SINGLE DOSE CYCLOPHOSPHAMIDE

ARJUN G(1) C.RAVALI PRATIMA GOUD(2), JIGNA N BATHIA(2), PROF. PRIYANKAR PAL(3).
(1) Postgraduate in Pediatric Medicine
(2) Fellow in Pediatric Rheumatology
(3) Head of Pediatric Rheumatology
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BACKGROUND:

Henoch-Schonönlein Purpura (HSP), also known as IgA vasculitis is a small vessel vasculitis. Initial treatment of choice is oral followed by intravenous Corticosteroids. Choice of therapy remains controversial in patients unresponsive/ partially responsive to high/ escalating doses of steroid. Cyclophosphamide is a cytotoxic immunosuppressantused in treatment of several vasculitis as well as in HSP with cerebral vasculitis, pulmonary hemorrhage and severe GI involvement.

METHODS:

Retrospective observational study on HSP patients with severe abdominal pain and gastrointestinal bleeding unresponsive/ partially responsive topulse doses methyl prednisolone, treatedwith single dose (500mg/m2) intravenous cyclophosphamide.

RESULTS:

In this case series , six children (1 girl and 5 boys) aged 6-15 years with HSP who developed severe GI pain with bleeding resistant to both 2mg/kg or pulse (10-30mg/kg) i.v methyl prednisolone was treated with single dose (500mg/m2) i.v cyclophosphamide. Single dose cyclophosphamide was given at a median duration of12 days from disease onset.All patients responded to single dose i.v cyclophosphamide with no further episodes of gastrointestinal bleed, symptoms subsided within median duration of 29 hours of cyclophosphamide.

1 patient developed alopecia 3 weeks post cyclophosphamide infusion, which improved later on and 1 patient developed secondary hospital acquired dysentery during hospital stay.
Clinical characteristics are mentioned in table 1.

CONCLUSION:

Single dose of i.v cyclophosphamide may be beneficial in HSP with severe GI involvement non responsive to high dose steroids.

VARIABLE	1	2	3	4	5	6
AGE / GENDER	6y/F	9y/M	7y/M	13y/M	6y/M	6y /M
DAY OF PRESENTATION	5th day	8th day	7th day	9th day	4th day	17th day
SYMPTOMS AT ONSET	Pain abd, purpura, ankle arthritis, melena on day11	Pain abd, arthritis B/L knee, elbow, purpura, scrotal swelling, hematochezia on day13	Pain abd, purpura, hematochezia on day13	Pain abd, purpura, melena day 11, hematochezia day 13	Pain abd, purpura, arthritis knee, ankle, wrist, melena on day12	Pain abd, orchitis, purpura, hematochezia on day 15
INITIAL TREATMENT GIVEN	DMM, MP at 2mg/kg	MP 2mg/kg,3 mg /kg	MP 2mg/kg, 3mg/kg	MP 3mg/kg	MP 3mg/kg	DMM, MP 2, 3mg/kg
ADVERSE REACTION	Alopecia due to CYC	None	Infection	None	Thrombus in ceph vein	None
UPPER GI ENDOSCOPY	Gastric, duodenal ulcer	Not conducted	Not conducted	Duodenitis	Not conducted	Not conducted
ADDITIONAL THERAPY	MP 30mg/kg, Cyclophosphamide 500mg/m2 single dose	MP30mg/kg, Cyclophosphamide 500mg/m2 single dose	MP10mg/kg, Cyclophosphamide 500mg/m2 single dose	MP 10mg/kg Cyclophosphamide 500mg/m2 single dose	MP 10mg/kg Cyclophosphamide500mg/m2 single dose	MP 10mg/kg Cyclophosphamide 500mg/m2 single dose
WHEN RESPONSE ACHIEVED	13th day of illness	18th day of illness	17th day of illness	13th day of illness	14th day of illness	18th day of illness
RENAL INVOLVEMENT	Endocapillary proliferative Glomerulonephritis	none	none	none	none	none

Clinico-laboratory Profile of Children with Kawasaki Disease: An Experience From A Tertiary Care Centre in Northen Part of West Bengal

1.Dr Shatadip Chakraborty (PGT, Dept of Pediatrics, Malda Medical College)
2. Dr Sarbani Misra Roy (Associate Professor, Dept of Pediatrics, Malda Medical College)

Background
Kawasaki disease (KD) is an acute medium vessel vasculitis, more prevalent in children less than 5 years of age. In absence of specific clinical features and biomarkers, itsdiagnosis is often delayed and may develop complications.

Objectives
To study clinico-laboratory profile and short-term outcomes of the children with Kawasaki disease admitted in a tertiary care hospital in Northen Part of West Bengal.

Methods
Case records of 14 children with KD, registered between February 2023 to July 2023 in the Department of Paediatrics in Malda Medical College and Hospital, Malda, West Bengal were reviewed.

Results
Fourteen children (7 boys, 7 girls, mean age- 2 years 4 month) had KD.More than 66.6% children in our cohort had complete KD. All children had fever 100%(n=14). Mucosal involvement 92.8%(n=13), extremity changes 64.2%(n=9), conjunctival injection92.8%(n=13) and cervical lymphadenopathy 50%(n=7) were other common clinical features. One child developed cardiogenic shock.On investigation, increased ESR 92.8%(n=13) and increased CRP 85.7%(n=12) was almost universal. Neutrophilic leucocytosis78.5%(n=11), thrombocytosis 42.8%(n=6), anaemia 50%(n=7), hypoalbuminemia 42.8%(n=6) were the other laboratory findings. Eleven children (78.5%) had coronary artery aneurysms (CAAs) which was quite high and diagnosed on first week of illness.92.8% (n=13) children received intravenous immunoglobulins (IVIG). One child did not receive IVIG as his parents refused for it. One child received methylprednisolone pulse therapy followed by tapering doses of prednisolone in addition to IVIG.

Conclusion
Though Kawasaki disease is common in our centre but prompt diagnosis and early initiation of treatment may prevent its complication.In our study nearly 80% had coronary dilatation, diagnosed in first week of illness, got improved after IVIG administration.

PROSPECTIVE ANALYSIS OF ANTIBIOGRAM REPORTS WITHIN APAEDIATRIC INTENSIVE CARE UNIT IN A TERTIARY MEDICAL COLLEGE OF EASTERN INDIA

Dr.Jauhar Iqbal, junior resident ,PICU, Dept of Paediatrics , Medical College Kolkata.
Dr. Mihir Sarkar, Professor and PICU in charge , Dept. of Paediatrics , Medical College Kolkata
Dr.MoumitaSamanta , Professor and HDU in charge , Dept of Paediatrics , Medical College Kolkata .

BACKGROUND : Compilation of latest antibiogram to monitor the changes in the pattern of microbial infection and antibiotic resistance is important in PICU to formulate judicious antibiotic therapy.

OBJECTIVE : To analyse all the culture sensitivity patterns in various samples collected in the year of 2022-2023 and to establish an definite pattern in antimicrobial susceptible test (AST) in PICU of a tertiary referral hospital.

MATERIAL AND METHODS : This prospective longitudinal observational study was performed on microbial culture and AST data collected throughout 1 year (2022-23) in the PICU. Samples included the first diagnostic sampling and the sampling done during the whole course of stay at PICU.

RESULTS : Total of 73 samples collected from 45 patients were positive for different kind of microbes . Blood samples constituted 36.9% , ET tube aspirate 35.6% followed by urine samples (9.5 %) and CSF samples (5.4%) . Pseudomonas sp. was the most predominant microbe (23.2 %) , followed by klebsiella sp. (17.8%) , non-fermenting gram negative rods (8.2%) ,Escherichia coli (5.4%) and candida sp. (2.7%). Among antibiotics tigecycline was sensitive in 36.9% of the total positive samples followed by cefoperazone/sulbactum (27.3%), meropenem (27.3%), amikacin (21.9%) and piperacillin/tazobactum (20.5%). Most gram negative bacteria were sensitive to tigecycline and colistin (34.3%) and most gram positive were sensitive to tigecycline and cefepime (71.4%)

CONCLUSION: Overall Gram negative bacilli contributes majority of positive cultures in tertiary care PICU with tigecycline being sensitive in mostsamples. Periodic analysis of such data help to guide empirical antibiotics.

Correlation of different inflammatory markers in critical phase with severity of dengue infection and outcome : An observational study

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Dr. Mihir Sarkar, Professor & PICU in charge , Medical College Kolkata.

Background: Dengue infection is one of the most important arboviral infection causing wide spectrum of clinical manifestation & severity. Studies have shownsignificant rise of inflammatory markers & those can be correlated with disease severity.

Objective: This study has been designed to observe the rise of various inflammatory markers in critical phase of dengue fever and compare their significance with severity and duration of illness.

Material & methods: This is a longitudinal, descriptive, observational, interim analysis. Patients fulfilling criteria of moderate and severe dengue infection admitted in hospital was enrolled after considering inclusion & exclusion criteria. Primary outcome was determined by comparing inflammatory parameters between moderate and severe dengue infection. Secondary outcome was determined by duration of hospital stay, complications and final outcome.

Results: A total of 35 patients considering the inclusion & exclusion criteria were studied into 2 groups of moderate & severe dengue. Out of the 5 inflammatory markers studies, serum C-reactive protein(p value- 0.008), ferritin(p-0.026) & procalcitonin(p- 0.006) were significantly higher in severe dengue but TLC(p value-0.9) & ESR(0.11) wasn't satisfying. Only CRP had significant relation with day of fever presentation(p value-0.04). Rise of the markers also varies with duration of illness and length of hospital stay.

Conclusion: This study concludes that some inflammatory markers like CRP, ferritin& procalcitonin rise significantly with increasing severity of dengue whereas ESR & TLC cannot be reliable. Measuring these parameters in critical phase of the disease can correlate with severity and prolongation of disease course. These evidence suggests importance of inflammatory markers in critical phase of dengue fever.

IMPACT OF FLUID BALANCE IN OUTCOME OF CHILDREN WITH ACUTE KIDNEY INJURY ADMITTED IN PAEDIATRTIC INTENSIVE CARE UNITIN A TERTIARY CARE HOSPITAL

AUTHOR:

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Dr. Mihir Sarkar, Professor and PICU incharge,Medical college Kolkata

BACKGROUND: Acute kidney injury is a common clinical condition in PICU and often associated with haemodynamic instability requiring fluid resuscitation. Studies have shown that fluid accumulation has a significant relationship with adverse outcome including mortality and decrease renal function recovery.

Objective: The study was designed to studyCorrelation of fluid balance within 48 hrs of onset of AKI and mortality associated with it.

Materials and Method: It is a longitudinal, descriptive, observational interim analysis, patients fulfilling criteria of AKI admitted in PICU enrolled following consideration of inclusion and exclusion criteria. Primary outcome was determined by correlation of fluid balance within 48 hrs of onset of AKI and mortality associated with it. Secondary outcome is assessed by PRISM score, requirement of mechanical ventilation , need of RRT,length of PICU stay, final outcome.

Result:A total of 30 patients met the inclusion and exclusion criteria and included in the study. Mortality was significantly higher with patient associated with fluid overload (mortality 30%) compared to patient without fluid overload (mortality 5.8%), odds ratio :7.1 (p value 0.04). Among 30 patients, 8 patients require RRT (26%), 13 patients have fluid overload (>5%). There is positive correlation between fluid overload with RRT, final outcome, duration of hospital stay, PRISM score (correlation coefficient respectively 0.7,1,0.6,0.5)

Conclusion: The study provides evidence that maintaining a negative or neutral fluid balance is associated with lower incidence of mortality. These findings suggest the importance of implementing strategies to avoid fluid overload in PICU.

EPIDEMIOLOGY, CLINICAL PRESENTATION AND RESPIRATORY SEQUELAE OF SEVERE ADENOVIRAL PNEUMONIA IN CHILDREN ADMITTED IN A TERTIARY CARE PEDIATRIC INTENSIVE CARE UNIT :A COMPARATIVE STUDY BETWEEN TWO EPIDEMICS ,2018-19 vs 2022-23

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Institute of Child Health,Kolkata

Background

Adenovirus can cause severe pneumonia in children specially in those younger than 2 years of age. In this study,we have done a comparative analysis of epidemiology ,clinical presentation and respiratory sequelae of recently encountered 2 adenoviral epidemics (2018-19 vs 2022 - 23).

Objectives

To do a comparative analysis of epidemiology ,clinical presentation and respiratory sequelae of 2018-19 epidemic vs 2022-23 epidemic.

Materials and Methods

This is a single centre,prospective and comparative study conducted in PICU of an Eastern India institute between two epidemics of adenoviral infection.We have compared the data of December 2018- May 2019 epidemic with the data of December 20232to 31st July,2023 epidemic .All the patients of severe adenoviral pneumonia needed PICU care had been included in this study.

Results

We have encountred 98 patients of severe adenoviral pneumonia in the recent epidemic whereas in the previous one we had only 33.Both the outbreaks had male predominance with infants being affected mostly.

Respiratory support was required in only 60%(20) cases previously,while this epidemic showed 100%(88) requirement.

71(72%) patients survived this outbreak and got discharged while there were 22(66.7%) survivors in the previous one and two left against medical advice. Among these 71, till now 35(55%) have developed Bronchiolitis Obliterans with mean duration of follow up of 120 days while previous epidemic showed incidence of PIBO of around 80% with mean follow up of 334 days.

Conclusion

This epidemic showed higher number of clustering of cases in short span,with a more severe course of illness, as well as more requirements of respiratory support but with reduced mortality.

Etiologyof meningitis in pediatric age group in a tertiary care hospitalin eastern India.

Dr.Abdul Aziz, PGT department of Paediatrics
Prof.(Dr.) Jayant Kumar Muduli, Professor and HOD department of paediatrics
Dr. Manisha De, Asst.Professor department of paediatrics
Iq city medical college and hospital Durgapur

Background:
Meningitis is one of the serious and fatal infectionassociated with high mortality and morbidity in children.Aim of our study was to determine the etiological profile of meningitis amongchildren aged between 3months to 18 years.

Objectives:
To determine the etiologyof meningitis.

Material and methods:
This study was conducted over a period of 6 months.We have included children admitted to our hospital, age group between 3 months to 18 years having clinical features of meningitis.The diagnosis was made based on history, clinical examination (meningeal sign) and laboratory finding.Lumber puncture for CSF study along with blood test and Imaging of brain were done.

Result:
Overall 30 cases were included.About 13 cases (43.3%) Acute bacterial meningitis (ABM), 5 cases (16.6%) Viral/aseptic meningitis, 3 cases (10%) CSF findings were normal, 3 cases (10%) meningitis associated with scrub typhus,2 cases (6.6%) Tubercular meningitis, 2 cases (6.6%) meningitis associated with Dengue, 1 case (3.3%) HSV meningitis, 1 cases (3.3%) meningitis associated with enteric fever.

Conclusion:
The incidence of ABM was found to be predominant type among different type of meningitis.Increased incidence of meningitis was seen with other infectious disease like Scrub typhus, dengue, Enteric fever. Isolation of culpable organisms were possible in few cases only due tousage of empirical antibiotics before CSF study.

Case Series – Criggler Najjar Syndrome 2

Presenter: Dr Samya Mitra
[Junior Resident Department of Pediatrics AIIMS Kalyani

Introduction:
Crigler Najjar Syndrome Type 2 is a genetic disorder characterised by non-haemolytic unconjugated hyperbilirubinemia[1]. It is caused by a partial defect in uridine diphosphate glucoronoyl transferase-1 (UGT1A1) activity[2].

Case Description:
Case 1-
Miss B 15-year-old girl presented with history of yellowish discolouration of eyes and skin since 3 years of age. History of intermittent right hypochondriac pain for last 5 months. No history of neonatal hyperbilirubinemia. No history of yellowish urine, pale stool, prolonged fever, chronic drug intake or history of blood transfusion. On examination icterus present with no hepatosplenomegaly.Investigations suggestive of unconjugated hyperbilirubinemia(total bilirubin 22.7 mg/dl with indirect bilirubin 19.1 mg/dl, AST 40 U/L, ALT 58 U/L) with increased reticulocyte count(corrected 5.4%) with microcytic hypochromic peripheral smear and USG whole abdomen suggestive of cholelithiasis. Icterus improved clinically and total bilirubin decreased (total bilirubin 12 mg/dl with indirect bilirubin 10.5 mg/dl, AST 35 U/L, ALT 49 U/L) one month after starting oral Phenobarbitone at 2 mg/kg/day.
Case2-
Master A, 11-year-old boy presented with history of yellowish discolouration of eyes and skin since birth, did not receive phototherapy or exchange transfusion. No history of yellowish urine, pale stool, prolonged fever, chronic drug intake or history of blood transfusion. On examination icterus present with no hepatosplenomegaly. Investigations suggestive of unconjugated hyperbilirubinemia (total bilirubin 14.6 mg/dl with indirect bilirubin 12.5 mg/dl, AST 44 U/L, ALT 36 U/L) with increased reticulocyte count (corrected 2.8 %) with microcytic hypochromic peripheral smear and USG whole abdomen normal study. Icterus improved clinically and total bilirubin decreased (total bilirubin 11.1 mg/dl with indirect bilirubin 10.1 mg/dl, AST 45 U/L, ALT 30 U/L) one month after starting oral Phenobarbitone at 2 mg/kg/day.
Case 3-
Master J, 7-year-old boy presented with history of history of yellowish discolouration of eyes and skin since birth, received phototherapy for 10 days, no history of exchange transfusion. No history of yellowish urine, pale stool, prolonged fever, chronic drug intake or history of blood transfusion. On examination icterus present with no hepatosplenomegaly. Investigations suggestive of unconjugated hyperbilirubinemia (total bilirubin 12.5 mg/dl with indirect bilirubin 11.4 mg/dl, AST 40 U/L, ALT 23 U/L) with normal reticulocyte count (corrected 1.5%) with microcytic hypochromic peripheral smear and USG whole abdomen suggestive of normal study. He has been started on Oral Phenobarbitone at 2 mg/kg/day.

Discussion:
Benign non-hemolytic unconjugated hyperbilirubinemia has an excellent prognosis. Prompt clinical evaluation and its distinctive features can avoid irrelevantinvestigation[3]

Reference:

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OUTBREAK OF ACUTE FEBRILE ILLNESS DUE TO DENGUE VIRUS AGED 5 TO 12 YEARS IN A TERTIARY CARE HOSPITAL IN WEST BENGAL

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1.Second year PGT, Departmentof Paediatrics, IQ City medical college, Durgapur
2. Assistant Professor, Department of Paediatrics, IQ City medicalcollege,Durgapur
3.Associate Professor, Department of Paediatrics, IQ City medical college, Durgapur

Background: Dengue infection is caused by a flavivirus, and is recognized as one of the most important mosquito-borne human infections of 21st century. It is a self- limiting disease in majority of cases, may cause Dengue Hemorrhagic fever and Dengue shock Syndrome. Some neurological manifestations have been recognized as clinical consequences of dengue infection.

Objectives: To study clinical profile of dengue infection and evaluate outcome of dengue infection.

Methods and Material: The retrospective study was conducted at a tertiary care hospital over 6 months(May 2023 to October 2023). Patient aged 5 to 12 years presented with a high grade fever, myalgia, abdominal pain,petechiae, headache, retroorbital pain, nausea, vomiting, rash, neck rigidity were included into the study. Cases were followed up daily for the clinical and laboratory parameter.

Result: A total of 60 cases were classified into 47 (78%) non-severe and 13 (21.6%) severe dengue cases. There were 46(76.6%) males and 14(23.3%) females. Fever was present in 100% cases, myalgia(75%), abdominal pain(53%),petechiae(12%), thrombocytopenia(26%), neck rigidity(40%)were also found.

Conclusion: Dengue is one of the dreaded fever for the paediatric age group. The disease has various presentations and features,but early diagnosis and management can decrease case fatality rate.Neurological manifestations are infrequently reported as clinical consequences of dengue infection. Though severe dengue may be associated with meningoencephalitis, meningitis is a rare initial presentation of otherwise uncomplicated dengue fever. This study will elaborate knowledge about the disease and will improve the outcome.

MENTAL HEALTH SCREENINGS OF PEDIATRIC RHEUMATOLOGY OUTPATIENTS – A CROSS SECTIONAL OBSERVATIONAL STUDY

Dr TabasumeKhatun, Dr Suparna Guha, Dr Kunal Mukherjee

RKM Seva Pratisthan

INTRODUCTION

Mental health is a spectrum of condition from mental wellness to mental suffering & extreme cases lead to disorder. It has emotional, psychological & social aspects. On the spectrum of mental health individual's position can change over time depending on various factors. Physical & mental illness often coexists & long term physical illness have considerable effect on metal health. Rheumatological disease is not an exception. There are few studies regarding mental health of pediatrics population but definitive guidelines for screening are lacking.

PATIENT & METHOD

PLACE Pediatric Rheumatology OPD, RAMAKRISHNA MISSION SEVA PRATISHTHAN, VIMS, KOLKATA

DURATION JUNE 2023 – JULY 2024

INCLUSION CRITERIA All consecutive patients attending Rheumatology department diagnosed to have particular rheumatological disorder for a duration more than 1 year & age from 5 -17 year.

EXCLUSION CRITERIA Age less than 5 year and children known to have preexisting psychiatric & neurological disorder.

METHODOLOGY Children who agreed to participate in the study was been interviewed by using structured questionnaire DAWBA (Developmental and Well Being Assessment). DWABA is designed in such a way that it doesn't need psychiatrist or psychologist for administering. Researcher without much prior experience of mental health can rapidly conduct the interview.

This tool include questionnaire regarding mental disorders such as- separation anxiety, specific phobia, social phobia, panic attack & agoraphobia, post-traumatic stress disorder, compulsion & obsession, generalized anxiety, depression, deliberate self-harm, attention & activity, awkward & troublesome behaviors. For each disorder include two or more screening question. At the end of interview in case if there is positive response to the screening questions patient is being referred to the concerned health care facility for further management. Some other parameters height, weight, BMI, disease duration, disease activity has been taken. For measuring disease activity in SLE & JIA, SLEDAI -2k & JADAS10 has been used respectively.

Comparison of serum magnesium level of children with bronchial asthma during exacerbation and in between attacks

Dr. Pranab Kumar Dey(Associate professor), Dr. Sayeri Mukhopadhyay(3rd year PGT), Dr. Md Yasin(SR)
Department of Paediatrics, RG Kar Medical College

- Background: Bronchial asthma is a chronic inflammatory condition of the lung airways resulting in episodic airway obstruction. Magnesium has been found to have several actions on rabbit bronchial airways including relaxation of airway smooth muscle, brochodilatation, anti cholinergic effect and stabilization of mast cells. Deficiency of magnesium is associated with increased contractility of smooth muscle cells thereby leading to lack of bronchial smooth muscle relaxation.

- Objectives:
  - ❖ To find any significant difference in the serum magnesium level of children during exacerbation and in between attacks of asthma.
  - ❖ To find any correlation of serum magnesium level of children during acute exacerbation and in between attacks of asthma.

- Materials and Methods:
  - ❖ Study type:Observational descriptive longitudinal study
  - ❖ Study population: Diagnosed cases of bronchial asthma
  - ❖ Sample size: Calculated by formula
    $N=\frac{(Z1-a)^2 * SD^2}{L^2}$, N=40 for this study
  - ❖ Exclusion criteria: Children with other chronic pulmonary disease, cardiac, renal or endocrine disorder, with malnutrition.
  - ❖ Laboratory investigation: serum magnesium level measured by calmagite procedure. Normal levels-1.5-2.3mg/dl

- Results and conclusion:
  - ❖ Most patients were of age 6-10 years, males>females, residing in urban areas.
  - ❖ Family history, cooking in living room was more in uncontrolled asthma..
  - ❖ The mean serum magnesium levels during acute exacerbation of asthma in uncontrolled group was statistically significant($p<0.0001$).
  - ❖ The mean serum magnesium level during in the period between attacks of asthma in uncontrolled group was statistically significant($p<0.0001$).

    Hence, we concluded that hypomagnesemia is seen more in uncontrolled patients of asthma and is associated with exacerbations.

MYOCARDITIS- AN ATYPICAL MANIFESTATIONOF DENGUE FEVER IN CHILDREN IN A TERTIARY CARE HOSPITAL,KOLKATA

Dr Shah Masud Hayder[1] , Dr.Sayantan Mondal[2], Dr. (Prof) Gobinda Chandra Das[3]

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3. Professor and Head, , Department of Pediatrics, R. G. Kar Medical College and Hospital, Kolkata

- BACKGROUND:Myocarditis is a challenging diagnosis due to the heterogeneity of clinical presentations. It can present with a mildly raised cardiac enzyme to severe myocarditis leading to congestive heart failure, arrhythmias, cardiogenic shock, and death. It is a predictor of morbidity and mortality in dengue-infected patients.

- OBJECTIVES :The aim of our study was to evaluate the features of cardiac involvement with the severity of dengue feverand to exploreassociation of myocarditis with the length of stay in the hospital and mortality of dengue-infectedchildren admitted in our hospital.

- MATERIALS & METHODS : We observed a total of 73consecutive patients from May 2023 to October 2023 with confirmed dengue NS1 antigen or IgM antibody positivity between the ages of 1 month and 12 years. On the third day of fever, blood samples for cardiac markers were collected, and electrocardiograms (ECG) and echocardiograms were performed for each patient.

- RESULT: Out of 73 cases, we diagnosed 15 cases asdengue haemorrhagic fever (20.5%), 8 cases as dengue shock syndrome(10.9%) and 4 cases associated with cardiac involvement(5.4%).On multivariable analysis, patients withabnormal ECG and echocardiography findings had a prolonged hospital stay (>3 days),correlated with dengue severity and was significantly associated with in-hospital mortality.

- CONCLUSION: There is increase in trend of myocarditis among patients with severe dengue and delayed hospital admission.Myocarditis in dengue patients is a significant and understudied complication in many aspects.To prevent dengue-associated myocarditis, appropriate measures must be implemented.

B Cell Primary Immunodeficiency : Report of Four Clinical Cases

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Deptt of Paediatrics , IPGME&R/ SSKM Hosp, Kolkata, WB

BACKGROUND:Primary immunodeficiency disorders(PID) comprise a genetically heterogeneous group of disorders of which primaryB cell immunodeficiency is most prevalent.Contrary to the common belief, PIDs are common(1:1200) in general population.
OBJECTIVE: To present and discuss 4 cases of B cell PIDs.

RESULTS:
Four children with suspected PID admittedin department of paediatrics, IPGME&R, Kolkata were evaluatedand they were as follows:.

1. 6 year male presented with fever with arthritis and hepatosplenomegaly and failure to thrive (FTT) was treated as sJIA without improvement. Past history of recurrent respiratory and skin infections was clue for investigations for PID and finally diagnosed as**hyper IgM syndrome**.

2. 2.5 year male presented with dysentery, pneumonia and FTT. He had hepatosplenomegaly, generalised lymphadenopathy with bicytopenia but finally diagnosed as**CVID**.

3. 4 year male,presented withpsoas abscess, recurrent ear discharge and FTT since late infancy.History of another male sibling loss due to pneumonia was clue for PID evaluations. Ultimately diagnosed as**X linked agammaglobulinemia,** further confirmed by genetic study.

4. 6 month female presented with persistent pneumonia since 3 months of age. She had PDA. HerIg profile and lymphocyte subset markers were normal initially but at 8 months all immunoglobulins were below age appropriate value and well responded to monthly IVIG with diagnosis of **atypical (very early presentation) CVID**. Genetic study report is pending.

   All patients are on follow up and doing well with monthly IVIG supplementation.

CONCLUSION : Suspicion for PID is the pillar for diagnosis.

A case series Japanese encephalitisassociated with multisystem involvement

Dr Ashish Kumar PGT2 NRSMCH

Background: Japanese encephalitis virus(JE) virus is member of flaviviridae family and closely related to West Nile virus.We report four patients admitted in intensive care unit of tertiary care hospital who had different spectrum of neurological and renovascular manifestations and required maximum inotropic support.

Objective: Our objective to find and evaluate systemic manifestations seen in IgM PositiveJapanese encephalitis patients admitted in paediatric intensive care unit of tertiary care hospital and subsequently boosting our existing knowledge. Case series is done to assess pattern of diseaseprocess, outcomes and various modalities management.

Materials and Methods:
A series of 4 cases of Je IgM positive children aged between 3y-10y, admitted in our intensive care unit were evaluated and managed according to their clinical status.

Conclusions:
All cases had transaminitis with acute kidney injury. Case 2 presented with nystagmus with hypereflexia followed by hemothorax and hypotension refractory to vassopressors. Case 1 had hypertensive crisis followed by sepsis then MODS. Case 3 had focal neurological deficit with huge hepatomegaly and transaminitis. Case 2 & 3 didn't respond to corticosteriod& IvIg therapy. Case 4 had bleeding manifestations with acute renal injury. All of them required invasive mechanical ventilation. 3 out them eventually succumbed.

NEUROLOGICAL MANIFESTATION AND SHORT TERM OUTCOME OF MIS-C IN CHILDREN: A CASE SERIES

1. Dr. Sushama Sahoo, Assoc. Professor & HOD
2. Dr. Baisakhi Soren, Assistant Professor
3. Dr. Bharat Lal Kisku, 2nd Year PGT
Affiliation: Department of Pediatrics, Malda MCH

Introduction: Covid has been a great threat to the world in past 3 years and continues to be so with cream of the pie: MISC, which is still under radar unfolding new insights in pathophysiology and treatment. This is a study on this NOVEL problem to give some insight.

Materials and Methods: This epidemiological study is a case series comprising of five children with MISC diagnosed with WHO criteria, all presenting with neurological manifestations admitted in a tertiary care centre.

Results: The five children in my study had age range of 3.5 to 8 years. 4 out of 5 being female and one male child. Anti SARS cov2 Antibody positive in high titre (>250). One patient was positive for Rtpcr cov-antigen as well. All patients had fever +/- skin rash/AGE. CNS symptoms were convulsions in all(focal and generalised); one patient had hemiparesis. MRI brain showed infarction in two patients and demyelination in one patient. CSF study were normal. All were treated with IV Methylprednisolone +/-IVIG and aspirin. 4 patients had high coronary artery z score . At follow up after 6 months, two out of five patients had recurrent attacks of focal seizure requiring admission.

Discussion: According to this case series, neurological manifestations in MISC are rather not uncommon and pose importance in prognostication. Large prospective study is needed to better explore the disease spectrum.

A STUDY ON CLINICO – EPIDEMIOLOGICAL PROFILE OF MENINGITIS PATIENTS REQUIRING PICU CARE IN A TERTIARY CARE HOSPITAL OF EASTERN INDIA

1. Dr. Sushama Sahoo, Associate professor& HOD
2. Dr. Sk. Jeauddin, Assistant Professor
3. Dr. Kushal Mandal, 2nd Year PGT
Affiliation – Department of Pediatrics, Malda MCH, WB

Background: Meningitis is the inflammation of the brain and spinal cord meninges. Most common etiology of meningitis in pediatric population is being infectious. Many of them present with systemic complications that need intensive care.

Objective: To study the Clinico-epidemiological profile of meningitis patients requiring PICU care in a tertiary care hospital of West Bengal.

Material and Method: Hospital based Cross Sectional study.The data are analyzed with Pearson's Chi square test/ Fischer's exact test, Microsoft Excel and SPSS software version.p value of < 0.05 has been considered as significant.

Results: Out of 171 meningitis patients, 74 (43.3 %) were <1 year of age, 60 (35.1%) were between 1 to 5 years and 37 (21.6%) were >5 - 12 years.Males (59.6%) were predominantly affected. Etiology noted were –bacterial - 89 (52%), aseptic - 62 (36%.3) and tubercular - 20 (11.7%). 56 (32.7%) patients had multi-organ involvement along with meningitis. CT/MRI brain revealed significantfindings in 72 (42.1%) patients.Statistically significant associations were found - between age of patients and type of meningitis(p value <0.001), type of meningitis and systemic complications(p value <0.005), type of meningitis and PICU stay(p value <0.038), systemic complications and outcome (p value <0.001).The case fatality rate of bacterial meningitis with multi-organ involvement was high (54.8%) and death occurred mostly in under-5 age-group (77.84%), mostly among infants (37.84%). 93 (54.39%) patients were discharged.

Conclusion: Meningitis is still a very important public health problem. Meningitis patient with multi-organ involvement had poor prognosis.

Acute Infective Myocarditis in Pediatric Patients: A Case Series

Dr Sayantan Mondal, Assistant Professor, Paediatrics, R.G. Kar MCH.
Dr Somoshree Panda, PGT, Paediatrics, R.G. Kar MCH

BACKGROUND
In the pediatric population, myocarditis is primarily caused by infectious agents and presents with a diverse range of clinical features, including cardiovascular collapse, respiratory distress, heart failure, and arrhythmias.ECG, echocardiography and serum biomarkers aid in the diagnosis, but management has to be individualized often depending on the clinical presentation and investigation reports.

OBJECTIVE
To describe the etiology, clinical presentation, diagnosis, and management of five cases of acute infective myocarditis in children at a tertiary care hospital.

MATERIAL AND METHODS
We present five cases of myocarditis in children aged 1-11 years managed in the PICU of a tertiary care center from March-November 2023.

RESULTS
Among the five patients, three were diagnosed with scrub typhus, one with adenovirus, and one with MRSA infection. One scrub typhus patient experienced heart failure and cardiovascular collapse, another one exhibited respiratory distress, shock, and posterior reversible encephalopathy syndrome, while the other had heart failure, shock and meningoencephalitis. The adenovirus-infected patient presented with paroxysmal supraventricular tachycardia and cardiogenic shock; MRSA patient had cardiogenic shock and pyopericardium. Diagnoses were confirmed through ECG, troponinT, NTproBNP, CKMB, and echocardiography. Management was primarily conservative, including fluid resuscitation, inotropes, vasopressors, antibiotics, and antiarrhythmics. The patient with pyopericardium required surgical intervention. IVIg was administered to two patients, and cardioversion was necessary for one.

CONCLUSION
The varied manifestations of acute infective myocarditis in children pose diagnostic challenges in emergency settings. However, a high index of suspicion for myocarditis in infectious diseases is crucial for early diagnosis and prompt intervention, facilitating optimal management.

ADENOVIRUS INFECTION WITH DIVERSE PRESENTATION IN PEDIATRIC POPULATION-A CASE SERIES

Dr.Chayan Dutta
Dr. B C ROY PGIPS,Kolkata

Adenoviral infections, caused by various serotypes of adenoviruses, typically present with respiratory and gastrointestinal symptoms in pediatric patients. However, atypical manifestations of adenoviral diseases, such as myocarditis, encephalitis, and hyperacute inflammatory reactions, pose diagnostic challenges for healthcare providers. Recognizing these unusual presentations is vital for timely intervention and improved outcomes. This case series examines three pediatric cases admitted to Dr. B.C. Roy PGIPS, Kolkata, illustrating diverse clinical expressions of adenoviral infections. These cases emphasize the importance of considering adenoviruses in the differential diagnosis of pediatric patients, even in the absence of typical symptoms, enabling early diagnosis and tailored interventions for better clinical management and prognosis.

The first case involves a previously healthy adolescent who presented with acute myocarditis, leading to severe cardiac dysfunction. Despite the absence of typical respiratory symptoms, adenoviral etiology was confirmed through molecular testing. The second case centers around a young child exhibiting adenoviral encephalitis, emphasizing the virus's neuroinvasive potential and its impact on the central nervous system. Prompt diagnosis enabled targeted treatment, although neurological sequelae persisted. The third case features a child with hyperacute inflammatory reaction, demonstrating a rapid and aggressive systemic response to adenoviral infection.

Each case posed unique diagnostic challenges due to the uncommon clinical presentations, highlighting the importance of vigilance among healthcare providers. Timely recognition through molecular testing facilitated appropriate management, underscoring the significance of considering adenoviral infections in pediatric patients, even in the absence of typical symptoms.

A STUDY ON CLINICO-ETIOLOGICAL RADIOLOGICAL PROFILE AND OUTCOME OF ACUTE PANCREATITIS IN CHILDREN BETWEEN 6 MONTHS TO 5 YEARS

Anwesha Mondal,
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Background ofstudy: Acute pancreatitis is anautolytic disease caused by inappropriately activated pancreatic enzyme.

Objectives: To study etiological, clinicoradioradiological spectrum and short term outcome of acute pancreatitis.

Methodology:AProspective observational study was conducted amongthe children (samplesize-30) of acute pancreatitis between 6months to 12yearsof age, admitted in IPD of RGKar Medical College over a time period of 01.04.2022 to 30.03.23.The diagnosis of acute pancreatitiswas based on any 2 out of 3 criterias-abdominal pain,elevated serum amylase/lipase (>3times), and radiological evidences.A detailed clinicopathological (amylase/lipase, lipid-profile, CBC, CRP,LFT) and radiological (USG,CT, MRCP)spectrum and treatment out-come was studied.

Result and conclusion: Our studyhasamean ageof 7.5years with a male preponderance(56.7%). Abdominal pain was the most consistent complaint(100%), followed byvomiting(73.3%)and fever(50%).Cholelithiasis(35.5%) is the leading cause with a undetectableetiologyin 29% andhypertriglyceridemia in 12.9% cases.Serum amylase/lipase was raised in 93.3%cases.USG was the 1st imaging modality followed-by CT in sicker childfor radiological diagnosisin63.3% and 67%cases. MRCPwas done in 10 childrensuggestive of CBD abnormality in 6.7% cases. CTSI scoring was done in 18 childrenfor prognostication(10% severe 30% moderate 20% mild). Mean hospital stay was 9.5 days with a zero mortality.We can conclude thatincreased level of clinical suspicion followed by laboratory and radiological confirmation helps in early detection and good outcomein children withacute pancreatitis.

NEUROLOGICAL MANIFESTATIONS IN MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN (MISC) : A CASE SERIES

Dr. Shweta Paul, 2nd year resident
Professor Dr. T.K. SinghaMahapatra (HOD)
Department of Paediatric Medicine, NRSMCH

BACKGROUND

Multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19 is a hyperinflammatory syndrome with involvement of multiple organs, requiring timely treatment with anti-inflammatory drugs like steroids and intravenous immunoglobulins.
Here we describe a cohort of 4 patients with MISC with varied neurological manifestations.

OBJECTIVES :

1. To study the spectrum of neurological manifestations in MISC patients
2. To study the response to treatment with steroids and intravenous immunoglobulin and final outcome.

MATERIALAND METHODS

Patient record, BHT , lab reports, imaging investigations

RESULT

- One case had **super-refractory seizure** along with MODS.
- 2 cases had **arterial ischemic stroke**: one with infarct in splenium of corpus callosum and occipital cortex leading to visual disability, another with left sided hemiparesis.
- one had **brainstem encephalitis** with involvement of substantia nigra, psychiatric manifestation and involuntary movement.
- These patients required immunomodulation with IvIg and injection methylprednisolone pulse therapy and one received IL-6 antagonist (Tocilizumab) as well.
- All 4 patients required PICU admission, 3 required invasive mechanical ventilator support. One patient expired during the disease course and rest three were discharged with residual neurological disability.

CONCLUSION

MISC, though had predominantly respiratory involvement during COVID19 pandemic, however in post COVID era hyperinflammation is the biggest threat to paediatric population involving multiple organs and neurological complications are one of them.

A STUDY ON DEVELOPMENT OF SPONTENEOUS BACTERIAL PERITONITIS AND ITS CLINICAL PRESENTATION AND OUTCOME IN CHILDREN PRESENTED WITH LIVER DISEASE

Dr.Tapas Sardar & ProfDr. Pranab kumar Dey
RGKarMedicalCollageand Hospita

Background:
Spontaneous bacterial peritonitis (SBP) is a severe and often fatal infection in patients with cirrhosis and ascites.

Objective:
To know the development of spontaneous bacterial peritonitis and its presentation and outcome in a child ascites.

MaterialsandMethods:
From September 2022 to August 2023 total 60case with ascites in CLD and 60 case with non CLDas control were studied in hospital based prospective observational study and study conducted on children aged 1month to 12years admitted in pediatrics medicine ward of Rgkar medical college. Ascitic fluid analysis was done for diagnosis. (Ascitic fluid polymorph count >250 cells/cc suggestive of SBP). Clinical presentation and outcome were observed in those patients over 1 month.

Result:
In our study 19 (31%) patients developed spontaneous bacterial peritonitis out of 60patients,more common than non CLD.(19/60[31%] vs 8/60[13.3%]9 (p value= 0.016)A total of 80% case were symptomatic in spontaneous bacterial peritonitisdeveloped in CLD case. Patient with CLD with SBP had higher mortalityrate.(4/19 vs 1/13).(p value= 0.29)

Conclusion:
A total of 31% children with liver disease related ascites have spontaneous bacterial peritonitis; 80% are symptomatic. Patients with CLD with SBP have a mortality of 21% over 1 month follow up.

Dr Biswajit Sarkar
NRS Medical College

Background :
Viral pathogens are the most common cause of lower respiratory tract infection in infants and children older than 1 month but younger than 5 years. In severe case of viral pneumonia in younger children leads to permanent lung changes and often required recurrent hospital admission and more damages in subsequent admissions. These even leads to hyperinflammation and major number of children succumbed to death after a few numbers of hospital admission.

Objective :
Our objective is to boost our existing knowledge in case of viral pneumonia in infant and young children. A case series to study the pattern of the illness, predict the outcome and various modality of management.

Material and methods :
A series of 4 cases of viral pneumonia (Infant and young children) admitted in our PICU who required respiratory support > 1 week

Result and conclusion :
It is observed that infant with viral -pneumonia who required respiratory support more than 1 week (NIV or MV) developed permanent lung damage (ground glass opacity/bronchiectatic changes) and eventually they required prolonged respiratory support or oxygen support. They also become susceptible to another respiratory infection andafter a gap of few weeks they required multiple hospital admission. They presentedevery time with severe respiratory distress worsening each time requiring higher ventilatory settings and finally developed signs of systemic hyperinflammation (DIC, Myocarditis etc) and they were failing to survive even after proper Anti inflammatory therapy and other supportive measures.

Dr MANAS SARKAR
2nd year PGT, DEPT OF PEDIATRICS, NRSMCH

BACKGROUND:
Empyema is not infrequent complication of pneumonia. Currentlyantibiotic with intercostal chest drain insertion is the main stay of treatment in empyema. But recently intrapleural streptokinase instillation is gaining popularity in empyema treatment.

OBJECTIVE:
This study is to find out the clinical profile of empyema in children and efficacy of adjunctive intrapleural streptokinase along with chest drain in empyema.

METHOD:
Clinical profile, etiological agents, hospital course and outcome of 19 patients (average age of 4.6-year, M: F 13: 6) with empyema thoracis treated from May 2023 to October 2023was analysed. Patients were diagnosed based on aspiration of pus from pleural space. Clinical profile, response to therapy and outcome were compared between the patients who received intrapleural streptokinase (n = 9) and those who did not (n = 10).

RESULT:
On pleural fluid culture 42% found to be positive. Staphylococcus was the most common organism isolated(n=4). Average duration of stay of patient who received streptokinase on day 1 was 15 days, average duration of stay of patient who received injection streptokinase on day 2 was 19 days and average duration of stay of patient who did no received injection streptokinase was 20.5 days. All the patients were discharged from hospital with zero mortality and 2 of them required surgical intervention later

CONCLUSION:
Staphylococcus infection (MRSA) is most prevalent in this study. Intrapleural streptokinase appears to be a useful strategy to preserve lung function and reduce need for surgery in patients with late stage of empyema thoracis

SCRUB TYPHUS WITH CYTOKINE STORM AND ITS VARIOUS MANEFESTATION IN PEDIATRIC PATIENTS _ A CASE SERIES

Dr. Benajir Begam, Prof Dr Maitreyi Basu
Dr. B.C. Roy Postgraduate Institution of Paediatrics Science

Scrub Typhus is an infection caused by Orientia tsutsugamushi, gram negative coccobacillus, transmitted by bite of an infected larval trombiculid mite. It causes lymphohistiocytic vasculitis with endothelial dysfunctions with hyperinflammatory response. Excessive Immune response present with persistent fever, may affect cardiac, gastrointestinal, renal, haematological, dermatological, and nervous system. We got cases of Paediatrics scrub typhus with hyperinflammatory syndrome various systemic manifestation.

We present a case series of 8 Children presented in age group of 1month to 12yr admitted in our institution from February to October, 2023. All of them were found to have scrub typhus associated hyperinflammatory syndrome manifested with one or more features like Myocarditis, HLH, Multisystem inflammatory syndrome, transverse myelitis, cerebellitis, hepatitis. So early identification and treatment of these cytokine storm and complications accordingly may change the course of disease and favourably reducing mortality and morbidity.

Recently Scrub typhus patients are identified with different systemic manifestations and hyperinflammatory syndrome. This presentation elaborates how Scrub typhus affects immune system of different patient differently and raise a question of scrub typhus as an important cause of Multisystem inflammatory syndrome in children.

Comparative Study of Fosphenytoin and Levetiracetam as Second-Line Anticonvulsants for Pediatric Convulsive Status Epilepticus

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Institute of Child Health, Kolkata

Background

- Benzodiazepines are first-line treatment for status epilepticus (SE)
- Phenytoin or fosphenytoin is commonly recommended as second-line agents
- Limited comparative research on the effectiveness of these drugs
- Growing interest in alternative second-line agents with better safety profiles
- Randomized studies needed to examine efficacy of newer antiepileptic drugs

Objective

- To compare efficacy and safety of intravenous fosphenytoin and intravenous levetiracetam as second-line anticonvulsants for pediatric convulsive SE

Methods

- Open-label randomized controlled trial conducted at the Institute of Child Health
- Participants aged 3 months to 18 years with convulsive SE as second-line treatment
- Random assignment to receive levetiracetam (40 mg/kg over 5 min) or fosphenytoin (20 mg/kg over at least 10 min)
- Efficacy assessed based on cessation of clinical seizure activity within 5 minutes of infusion cessation and seizure recurrence within 24 hours

Results

- Levetiracetam terminated convulsive SE in 72% of participants, same as fosphenytoin
- No statistically significant difference in efficacy between the two drugs
- Median time from randomization to start of infusion: 11 min for levetiracetam, 12 min for fosphenytoin
- Comparable safety profiles observed for both drugs

Conclusion

- Levetiracetam could be a suitable alternative to fosphenytoin as a first-choice, second-line anticonvulsant for pediatric convulsive SE
- Further research with larger sample sizes and higher levetiracetam doses needed to establish efficacy
- Fosphenytoin, levetiracetam, and valproate are reasonable options for second-line treatment of established benzodiazepine-refractory SE in children and adults
- Consistent dosing according to guidelines is recommended for replicating efficacy

Dengue Associated with Haemophagocytic Lymphohistiocytosis (HLH): A Report of Nine Children from Eastern India carried on from august'23 to october'23

DR. Anushka Nag[1], DR. Sumita Pal.[2]
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[2]Associate Professor, Dept. of Pediatrics, Calcutta National Medical college and Hospital

Background: Dengue fever is one of the most common tropical fevers. Dengue is often complicated with HLH.

Objective: Early recognition is crucial in improving the outcome in HLH. This study from eastern India was done to analyse the clinico-epidemiological and biochemical profile, the treatment and the outcome in patients with dengue-HLH.

Materials and method: This is a retrospective, observational study in a tertiary care hospital carried out over a period of three months in nine children who developed HLH following dengue fever.Clinico-epidemiological profile,routine lab tests, radiological investigations were analysed. The children were treated with dexamethasone and IVIG.

Results: A total of 9 patients, aged 9 months to 60 months(mean 36 months) were diagnosed. All the 9 children(100%) had persistent high fever with hepatosplenomegaly with bicytopenia

,increased ferritin(>1,000ng/ml) , raised Triglyceride(>265mg/dl) and PT/APTT deranged. 6 out 9(66%) had rash and bleeding manifestation. 5 out of 9(55%) had lymphadenopathy, 6 out of 9(66%) had hypotension. Serositis, either as ascites or pleural effusion, was present in 100% of the patients. Encephaloapthy was seen in 2(22%).

All children were treated with steroids (IV dexamethasone10mg/m^2 or0.3mg/kg/day in 3 divided doses for 5days) and supportive care and made a gradual recovery with treatment. Second-line immune-suppressive (IV immunoglobulin: 1gm/kg) treatment was needed in 3 out of these 9 patients.

Conclusion: In persistent fever following recovery from dengue, HLH should always be suspected . Early, appropriate immunosuppressive treatment is likely to improve long-term outcomes and prevent mortality.

Keywords: Dengue,HLH,Dexamethasone,IVIG.

Kawasaki disease in PICU: Clinico-epidemiological profile and inflammatory markers - Experience from a tertiary Care Centre in Eastern India

Dr Mrinmoy Roy*, Dr Debadatta Mukhopadhyay**, Dr Gobinda Mondal *** Dr Somesuvra Bose**** Dr Ashok Kumar Mondal*****, Dr Dilip Kumar Pal €

*JR, **Associate Professor, ***Associate Professor, ****Associate Professor *****Professor and HOD, € Professor and Principal, Dr B C Roy Post graduate Institute of Paediatric Sciences

BACKGROUND:

Kawasaki disease is an acute self-limiting, systemic vasculitis with well established clinical criteria. However, occasionally children with Kawasaki disease may present with shock or heart failure. The factors leading to the critical condition are still being explored.

OBJECTIVE

- To get an overview of spectrum of critical presentation and biochemical profile,
- to identify the predictors of severity and outcome of patients with Kawasaki Disease in PICU.

MATERIALS AND METHOD

- A descriptive observational study was conducted at PICU on Children with Kawasaki disease (11 cases) in a tertiary care centre over a period of 1 year (1/07/22 to 31/06/ 2023).

RESULTS AND DISCUSSION

- Among11 patients, 7 presented with shock (63%), 5 with heart failure (46%) 1 had SVT controlled with single dose of adenosine.
- 7 patient (67 %) had diarrhoea presented as shock. required PPV , prolonged ICU stay(> 5 day) and 1 baby died.
- 7 cases had HsTrop-I >12 ng/ml and 3 were >60 ng/ml, all of them got intubated.
- 7 patient (63%) had all 3 coronary dilated,4 patient (30%) LAD only , 6 patients (54%) had left ventricular dysfunction. 3 patient had moderate to severe pericardial effusion and those 3 patient had prolonged ICU stay.
- The children(n=3) requiring INV and >1 inotrope shows cytokine storm IL-6=120 pg/ml, ferritin >1000ng/ml, pro-BNP 28000pg/ml, deranged coagulation profile.*(The child expired had fever for 10 day, ferritin>1000. pro-BNP >30,000pg/ml, trop I>73 ng/ml, all 3 coronary dilated >3z score and severe left ventricular dysfunction and large pericardial effusion.*

Limitations : This is a pilot study and is being extended to compare with those children with Kawasaki disease who did not require PICU admission.

ASSOCIATION OF SEVERITY OF ACUTE BRONCHIOLITIS WITH AGE AND GENDER:A HOSPITAL BASED OBSERVATIONAL STUDY

PRESENTING AUTHOR
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BACKGROUND

Acute bronchiolitis is a common respiratory illness that primarily affects infants and young children.The severity of acute bronchiolitis can vary among children, and understanding potential factors that may contribute to its severity, such as age and gender, is essential for effective management and treatment strategies. This study aims to explore the association between the severity of acute bronchiolitis and age group distribution, as well as the relationship between severity and gender distribution.

OBJECTIVES

To find association (if any) of severity of acute bronchiolitis with age and gender in chidren admitted with acute bronchiolitis.

RESULTS

In the present study, mild severity of acute acute bronchiolitis was highest among children with age <6 months (23.9%) and moderate severity of acute acute bronchiolitis was highest among children with age 6-12 months (78.1%) Severe severity of acute acute bronchiolitis was highest among children with age >12 months (1.3%) However, the association was insignificant (p>0.05).

This study found that mild severity of acute acute bronchiolitis was higher among female children (23.3%) and moderate severity of acute acute bronchiolitis was higher among male children (74%). However, the association was insignificant (p>0.05)

Conclusion

The severity of acute bronchiolitis does not appear to be significantly associated with age group distribution in our study.There does not seem to be a significant correlation between the severity of acute bronchiolitis and gender distribution either.

A STUDY ON EXTRAHEPATIC MANIFESTATIONS IN CHILDERN AGED 3-17 YEARSDIAGNOSED WITH HEPATITIS A AT A TERTIARY CARE HOSPITAL IN WEST BENGAL

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2ND YEAR PGT, PAEDIATRICS IQ CITY Medical College
Prof. (Dr.) ASISH BANERJEE
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IQ City Medical College, Durgapur

Background
Hepatitis A is generally an acute infection of the liver by an enterically transmitted picorna virus. The symptoms include nausea, vomiting, fatigue, abdominal pain,fever, jaundice, dark urine,altered sleeppattern and clay coloured stools. The signs include yellow discoloration of sclera, tender hepatomegaly,splenomegaly.Recently changing characteristics shows Extrahepatic manifestations of acute hepatitis A.

Objective
To study the extrahepatic manifestations of hepatitis A.

Materials and Methods
A retrospective study was conducted at tertiary hospital over 6 months.All patients age 3- 17 years presented with signs and symptomsare clinically suspected hepatitis A are enrolled. 40 seropositive cases for hepatitis A were clinically assessed and blood investigations were sent.

Results
Out of the 40 cases enrolled42.5% pleural had effusion , 37.6% ascites ,12% AGN and 5% scrotal oedema and 5% parotid swelling.

Conclusion
The disease burden of hepatitis A has increased because it shows more severe clinical manifestations in children. Atypical features include pleural effusion, ascites, acute glomerulonephritis, recurrent hepatitis, prolonged cholestasis, acute kidney injury, haemolyticanaemia and other extrahepatic manifestations include, pleural or pericardial effusion, acute reactive arthritis, acute pancreatitis, and neurologic complications, such as mononeuritis multiplex and Guillain-Barre syndrome. Management of hepatitis A includes general supportive care. Fundamental management of hepatitis A includes active vaccination.Vaccination program should be implemented in regional institution for early intervention and management.

Cord blood albumin as a predictor of neonatal jaundice

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Background: Bilirubin can have a toxic effect on the brain, so newborns must be carefully checked to identify those who may develop significant hyperbilirubinemia and bilirubin encephalopathy . This study aimed to determine if cord blood albumin could be utilized to predict the onset of significant newborn jaundice in newborn babies

Objective : To find out the clinical significance of cord blood albumin level as predictor of neonatal hyperbilirubinemia (NBH) that requires intervention.

Methods: Prospective observational study of 68 newborns with a mean gestation of 37.5 weeks, mean birth weight 2.5 kg and above, delivered at Jagannath Gupta Medical College, Budge Budge, Kolkata, India from August 2022 to September 2023. Blood sample was drawn by milking the umbilical cord and sent for serum albumin estimation at birth. Patients were then followed up on third day of life for total serum bilirubin (TSB). Cord blood for albumin (CBA) and venous blood for total serum bilirubin (TSB) were collected. Correlation of CBA and TSB that required intervention was done.

Results: Male to female ratio were 1:1.1, CBA≤ 2.8 g/dL is a high risk factor for significant NHB(AUC-0.718) requiring early intervention. 100 % of study population having CBA<2.8 g/dL required phototherapy as the mode of intervention for NHB. A cut-off level of CBA 2.8g/dL has a sensitivity of 40%, specificity of 100%, PPV of 100% and NPV of 82% in predicting NHB requiring intervention.

Conclusion: CBA≤ 2.8g/dl is a significant risk factor for developing NHB that requires early intervention and CBA> 3.3 g/dl is probably safe for early discharge of newborns.

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