RARE DISEASE FORUM NEWSLETTER

SRI LANKA COLLEGE OF PAEDIATRICIANS

RARE DISEASES Forum-SLCP

MARCH 2025

“MORE THAN YOU CAN IMAGINE”

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RARE DISEASE FORUM 2025

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PRESIDENT'S MESSAGE

Professor Ruwanthi Perera
Professor in Paediatrics
Faculty of Medical Sciences,
University of Sri Jayewardanepura

“No disease is rare when it affects someone you love”
#CareForRarePH : Philippine Society for Orphan Disorders

Rare diseases may be uncommon, but their impact on children and adults in Sri Lanka is profound. Many families face challenges in diagnosis, treatment and long-term care with limited resources available. While Sri Lanka has made progress in early detection and management to some extent in the recent years, much remains to be done. It is of much importance that affected children are diagnosed as early as possible to improve the overall outcome in the golden period of growth & development and to provide counselling to parents regarding future pregnancies.

Globally, advancements in genomics, targeted therapies, and patient advocacy have led to improved outcomes. However, our country still struggles with awareness, access to specialized care, and policy-driven support. Initiatives such as newborn screening programs, research collaborations, and national patient registries are crucial in bridging these gaps.

At present, different stakeholders are taking various steps at different levels to improve rare disease care through better diagnostics, access to essential medicines, and healthcare professional training. A collaborative national level movement is a much of a need for strengthening government policies, promoting early intervention and fostering partnerships with global research networks and internation organizations to bring cutting-edge treatments and care plans to our children.

Every step forward brings hope to those affected. Let us continue working together—health professionals, policymakers, researchers, and advocates—to ensure that no one faces a rare disease alone.
“Coming together is a beginning. Keeping together is progress. Working together is success”.

President
Rare Disease Forum

SECRETARY'S REPORT

Dr. Imalke Kankananarachchi
Senior Lecturer in Paediatrics,
Head-Nuclear Medicine Unit
Faculty of Medicine, University of Ruhuna
Consultant Paediatrician-National Hospital Galle

Rare Disease Forum (SLCP)
Events Calendar 2024–2025

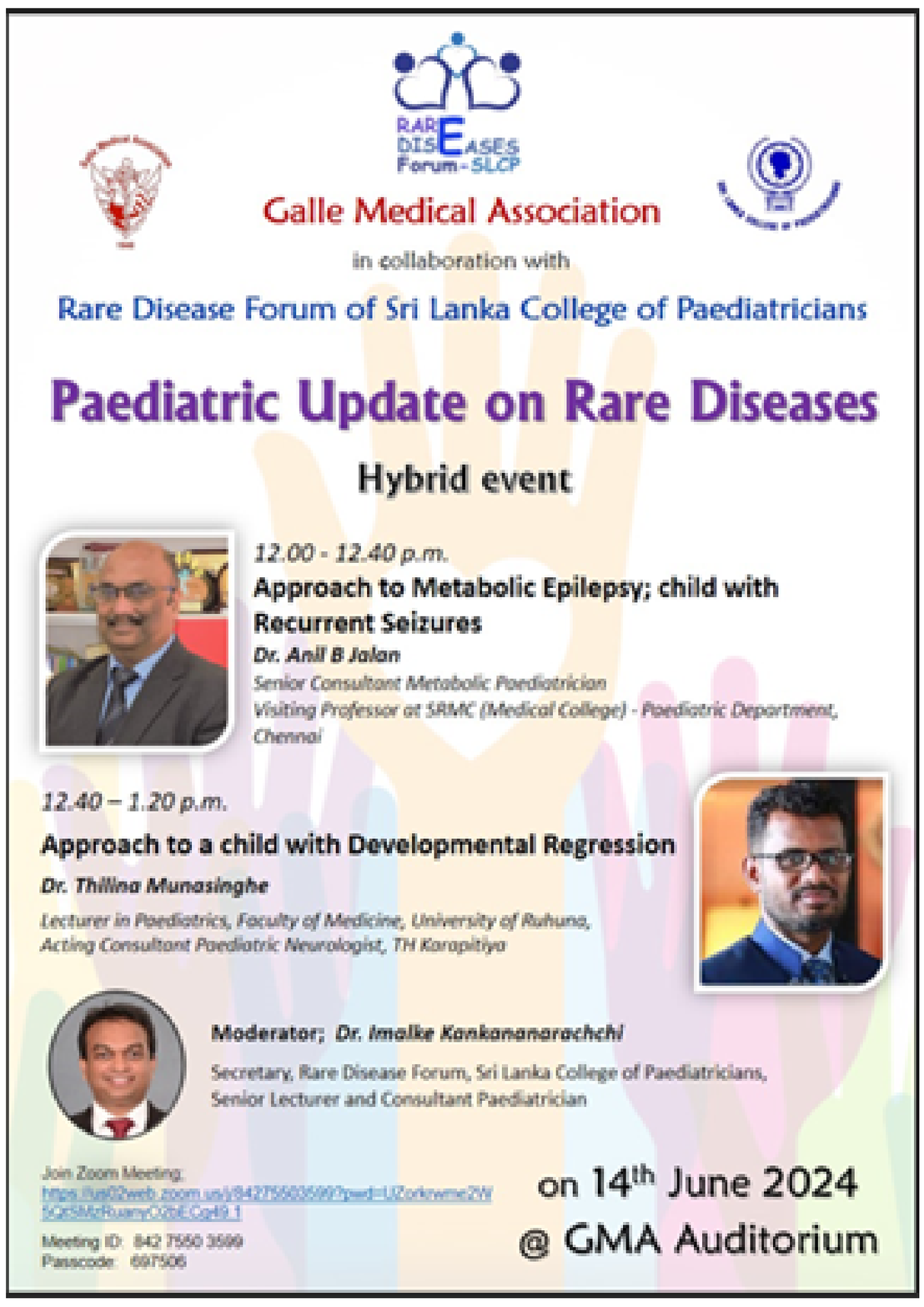
1. Rare Disease Day – March 2024

The 8th Rare Disease Day was held on 1st March 2024 as a hybrid event, with over 120 participants in attendance.

The event featured 46 poster presentations and was enriched by the expertise of Dr. Eresha Jasinge, Prof. Ruwanthi Perera, Dr. Hasani Hewawitharana, Dr. Prabani Maddumarachchi, and Dr. Imalke Kankananarachchi, who served as resource personnel.

2. Update on rare diseases
June 2024

The Rare Disease Forum of the Sri Lanka College of Paediatricians (SLCP), in collaboration with the Galle Medical Association, organized an event on 9th June 2024 at the Galle Medical Association Auditorium, focusing on Metabolic Epilepsies.
The event featured Dr. Anil Jalan from Mumbai, India and Dr. Thilina Munasinghe, Consultant Paediatric Neurologist, as resource persons.
It was conducted as a hybrid event, with over 60 participants attending in person and more than 100 joining virtually.



3. Overcoming Barriers: Bridging the gap between global and local needs in Lysosomal Storage Diseases with focus on Gaucher Disease – October 2024

The Rare Disease Forum of the Sri Lanka College of Paediatricians, in collaboration with the International Gaucher Alliance (IGA), hosted a hybrid session on Lysosomal Storage Disorders (LSD), with a focus on Gaucher disease (GD).

The primary objective was to raise awareness among paediatricians and other key stakeholders about the diagnosis and management of children with LSD, as well as the charitable access to enzyme replacement therapy, supported by the IGA.

This groundbreaking webinar, the first of its kind in Sri Lanka, was held at the Lady Ridgeway Hospital, the country's premier children's hospital. Over 100 healthcare professionals, including consultant paediatricians, postgraduate paediatric trainees, chemical pathologists, clinical geneticists, and nutritionists, attended the event in person, while around 50 participants joined online.

Dr. Duminda Samarasinghe, President of the Sri Lanka College of Paediatricians and Prof. Ruwanthi Perera, President of the Rare Disease Forum, SLCP extended a warm welcome to the gathering. The first session highlighted the global Gaucher Connect Programme and charitable access to medications, with talks by Mrs. Tanya Collin-Histed and Mrs. Vesna Aleksovsak. For many Sri Lankan doctors, this was their first exposure to the concept of charitable access. By the end of the session, a paediatrician reached out to me regarding a child with Gaucher disease who is currently untreated. This child and the paediatrician will be connected to the IGA for further support.

Dr. Aimee Donald from Royal Manchester Hospitals, UK, and Prof. Derralynn Hughes from University College London provided insightful presentations on the recognition, diagnosis and management of Gaucher disease. These talks were particularly useful in updating the audience’s knowledge on the latest advancements in Gaucher disease treatment.
On the local front, Dr. Eresha Jasinge discussed the available diagnostic facilities and challenges related to LSDs in Sri Lanka, emphasizing the effective use of the Chemical Pathology Department at Lady Ridgeway Hospital in diagnosing these conditions.

Dr Imalke K addressed the challenges clinicians face in managing LSDs, stressing the vital role that paediatricians play even when curative therapies are unavailable. Additionally, need for a national patient registry is underscored and initial steps to collaborate with SymetryML on a patient database is initiated.

Dr Duminda Samarasinghe,
President SLCP

Prof Ruwanthi Perera,
President Rare Disease Forum,
SLCP

Dr Eresha Jasinge,
Consultant Chemical Pathologist,
Metabolic Laboratory,
Lady Ridgeway Hospital

Dr Imalke Kankananarachchi,
Secretary, Rare Disease Forum,
Consultant Paediatrician
with Special interest in Inherited
Metabolic Disorders

4. Paediatric grand round on Newborn screening and Inherited Metabolic Disorders – March 2025

The Rare Disease Forum, in collaboration with the Galle Medical Association, hosted a hybrid event on 3rd March 2025 at the Galle Medical Association Auditorium. The event focused on the current newborn screening program in Sri Lanka and newborn screening for Inherited Metabolic Disorders. Prof. Manjula Hettiarachchi, Dr. Ketki Kudalkar and Dr. Anil Jalan served as resource personnel for the event.

5. CME Lecture- Kandy Society of Medicine March 2025

The Rare Disease Forum of the Sri Lanka College of Paediatricians organized a lecture on the Approach to Inborn Errors of Metabolism, which was delivered by Dr. Anil Jalan. The event was attended by approximately 100 participants, both in person and online.

International Collaborations

The Rare Disease Forum developed collaborations with the following international organisations to improve care of children with rare diseases.

- Metabolic Support UK
- International Gaucher Alliance
- A Rare Cause

Acknowledgement

The following individuals are acknowledged for their unwavering support in various means.

- Prof Harendra De Silva, Patron, Rare Disease Forum
- Prof Ruwanthi Perera, President, Rare Disease Forum
- Dr Aimee Donald, Paediatric, Royal Manchester Children's Hospital
- Dr Anil Jalan, Consultant Metabolic Paediatrician, Mumbai, India
- Dr Chris Hendrikzs- University of Pretoria, South Africa
- Jonathan Gibson- Campaigns Leads, Metabolic Support UK
- Kirsty Hoyle- CEO, Metabolic Support UK
- Tanya Collin-Histed- CEO, International Gaucher Alliance
- Vesna Aleksovska- IGA development
- Prof Kimitoshi Nakamura- President, Asia Congress of Inherited Metabolic Disorders (ACIMD)
- Prof. Derralynn Hughes- University College of London
- Prof Simon Jones- Royal Manchester Children's Hospital
- Dr Rob Wynn- Royal Manchester Children's Hospital
- Dr Andrew Morris- Royal Manchester Children's Hospital
- Dr Bernd Schwahn - Royal Manchester Children's Hospital
- Dr Eresha Jasinge- Lady Ridgeway Hospital, Sri Lanka
- Professor Manjula Hettiarachchi- Senior Professor, Nuclear Medicine Unit, Faculty of Medicine, University of Ruhuna
- Prof Jim Bonham, President- The International Society for Neonatal Screening
- Dr Vindya Subasinghe- Consultant Clinical Geneticist
- Dustin O'Dell- Co-founder & CEO, SymetryML
- Dr Tharindu Gamage- Senior Lecturer, Faculty of Engineering, University of Ruhuna
- Michael Kravchyna- Senior Engineer, SymetryML
- All the committee members of the Rare Disease Forum 2024

Rare Disease Forum Sri Lanka and the IGA Collaborate to Educate Healthcare Professionals on Gaucher Disease (GD) and support GD and rare disease families in Sri Lanka

The IGA is a patient-led international organisation that has become the 'go to' global voice for over 90% of the Gaucher community and has built its reputation through listening to and delivering outcomes that have impacted on patients and their carers' lives.

IGA website

The IGA's Global Gaucher Connect Programme collaborates with healthcare professionals and organisations to address challenges faced by patients and their families. See more by scanning this code.

Among the many activities for support in diagnosis and treatment, sharing information, education, and raising awareness we are proud to collaborate with many partners such as International Working Group on Gaucher Disease (IWGGD), A Rare Cause (ARC), SymetryML, Metabloic Support UK, Rare Disease Forum Sri Lanka, and more.

In some countries in Africa, South Asia, and Central Latin America, we encountered significant challenges in providing healthcare for GD patients, including limited diagnostic facilities, low awareness among healthcare professionals, restricted access to treatment and the absence of specific patient organisations.

Opportunities for improvement include:

- Increasing awareness by educating healthcare professionals and the public about GD.
- Improving access to treatment by advocating for supportive government policies.
- Building capacity by strengthening local healthcare systems and developing patient organisations.
- Developing clinical networks by connecting healthcare professionals with supportive services

Cooperation for supporting Sri Lanka:

The IGA collaborates with partners to establish a national rare disease registry, including GD, to understand prevalence, identify treatment and management needs, improve care through education and awareness and advocate for policy changes using registry data.

In October 2024, the Rare Disease Forum of the Sri Lanka College of Paediatricians and the International Gaucher Alliance (IGA) hosted a hybrid session on Lysosomal Storage Disorders (LSD), focusing on Gaucher Disease (GD) (Overcoming barriers: Bridging the gap between global and local needs in Lysosomal Storage Diseases with focus on Gaucher Disease). The goal was to raise awareness about diagnosing and managing LSD in children and providing charitable access to enzyme replacement therapy. Held at Lady Ridgeway Hospital. The webinar had over 100 in-person attendees and around 50 online participants.

Dr. Aimee Donald from Royal Manchester Hospitals, UK and Prof. Derralynn Hughes from University College London provided insightful presentations on the recognition, diagnosis and management of GD. These talks were particularly useful in updating the knowledge of the audience on the latest advancements in Gaucher disease treatment.

Developing a registry: A Path Towards Better Care

We are establishing a national rare disease registry (including GD) with the support of SymetryML by using federated AI technology.

The Registry Application is a tool for healthcare professionals managing rare disease patients.

Visit the SymetryML website

It uses the FHIR format to streamline data documentation and management, for efficient tracking of patient encounters, observations, lab results and diagnostics.

Physicians can link their practice to multiple organisations and its reporting dashboard offers insights into disease burden and prevalence. The registry leverages SymetryML's Federated AI platform for secure data collaboration and advanced analytics, enabling global partnerships without moving data.

The registry data will be used to understand GD prevalence, identify treatment needs, improve care through education and awareness, advocate for policy changes, established a newborn screening programme with the help of Metabolic Support UK.

Visit the Metabolic Support UK website

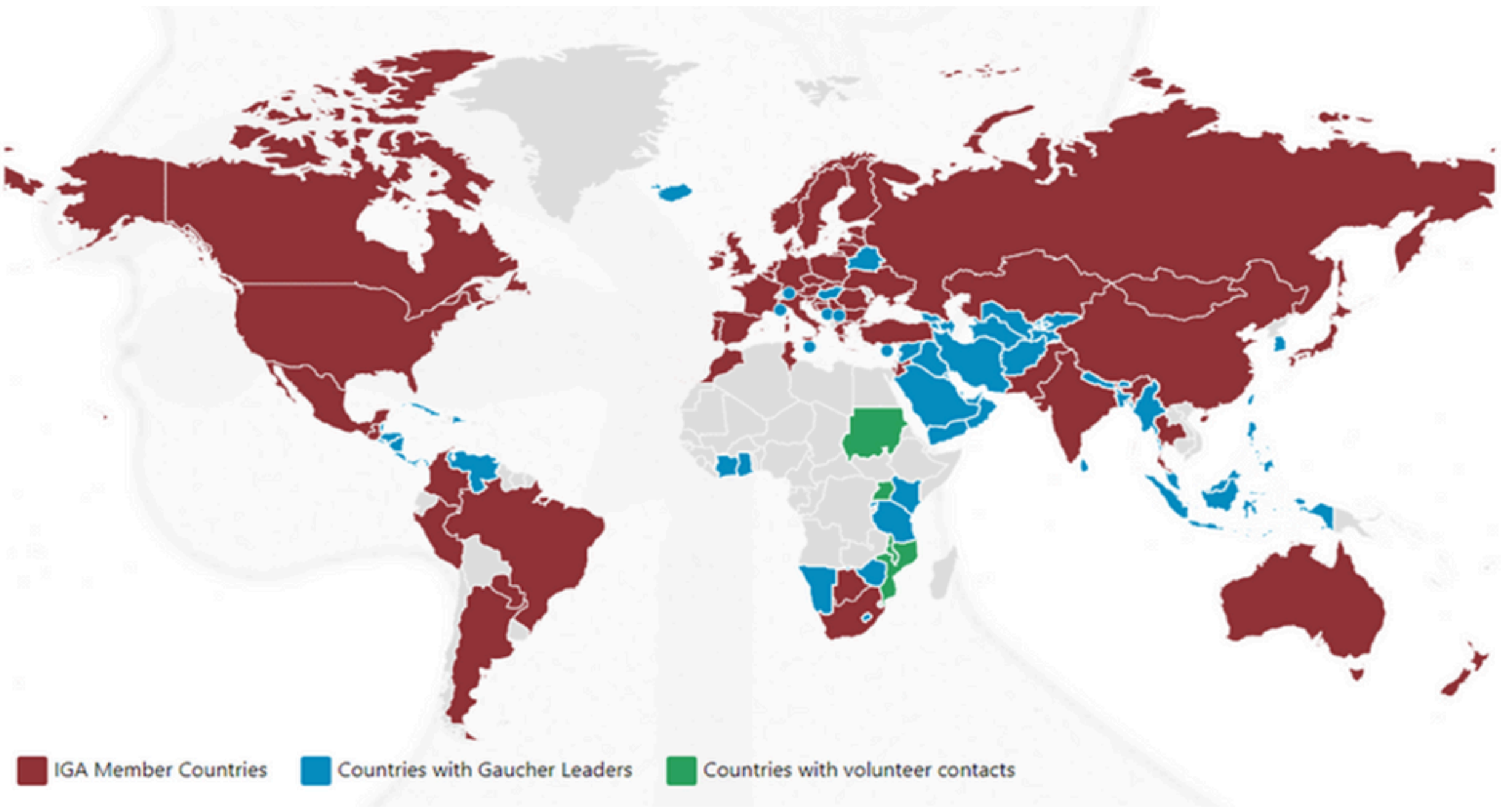
Statement from Prof. Dr Derralynn Hughes, Royal Free Hospital and University College, London, United Kingdom, Chairperson of IWGGD

"I was delighted to work with clinicians from Sri Lanka to raise awareness and provide education about Gaucher disease. It was great to see such interest in Gaucher disease and I hope that by working together to increase understanding of this rare condition we will be able help our patients' families and clinicians."

Statement from the IGA Chair, Aimeé-Kate Bosch

"Raising awareness of Gaucher disease in countries like Sri Lanka is integral to the IGA's mission. Working with the Rare Disease Forum Sri Lanka gives us even greater scope to educate healthcare professionals about this ultra rare disease. Greater knowledge means better access to diagnosis. This collaboration also means that we can improve outcomes for Gaucher patients and their families in Sri Lanka. This has been a valuable partnership, and I look forward to it continuing for many years to come."

The IGA is thankful to have the Rare Disease Forum as a partner in Sri Lanka. Our efforts are significantly impacting individuals with GD by proactively and reactively addressing challenges and fostering a sustainable and supportive healthcare framework for rare diseases.



New Frontiers in Rare Care:

International collaboration aiming to improve outcomes for rare diseases in Sri Lanka

In 2023, Dr. Imalke Kankananarachchi met members of the Metabolic Support UK (MSUK) team at the BIMDG conference in London, where he discussed the challenges faced by people living with inherited metabolic disorders (IMDs) in Sri Lanka. Dr. Kankananarachchi expressed his commitment to improving care for these communities, a vision that strongly aligned with MSUK's goals.
This shared vision sparked a collaboration aimed at improving outcomes for those living with IMDs in Sri Lanka. Since then, MSUK and Dr. Kankananarachchi have made progress towards realising this vision. In this article, we highlight the key milestones of this ongoing partnership.

Strengthening Awareness: The 'Think Ammonia' Campaign

The "Think Ammonia" campaign was inspired by our communities' stories about their loved ones experiencing severe negative outcomes or death due to hyperammonaemia not being diagnosed and treated quickly enough. To combat this, we have worked with our communities, healthcare professionals and other experts to ensure that people recognise the signs and test earlier, to save lives.
A major element of work is the guidance we've developed in collaboration with experts from across the UK which we have utilised to create posters and web pages for both the public and healthcare professionals. These materials act as an aid in emergency situations, ensuring timely diagnosis and treatment to save lives.
Aiming to ensure the benefit of this campaign is felt in Sri Lanka, we have worked with Dr Kankananarachchi to develop a "Think Ammonia: Sri Lanka" web page which has downloadable posters that have been translated into both Sinhala and Tamil for use in the country. Moving forward, we look to expanding this work further in Sri Lanka to improve outcomes for people experiencing hyperammonaemia.

Expanding Newborn Screening in Sri Lanka

Early diagnosis is key to improving outcomes for rare diseases, enabling access to support and treatments essential to achieving a good quality of life. Sri Lanka has already demonstrated these positive effects through the work undertaken to establish the national screening panel for congenital hypothyroidism.

This programme has shown positive results with 95% uptake and 101 babies were diagnosed as screen-positive for this condition in 2016. These infants then go onto receive monitoring and treatment to improve their outcomes and almost all children who are diagnosed and treated from an early age will grow up normally.

Building on this success, we have submitted a funding application for a new project aimed at generating prevalence data for 50 treatable and manageable IMDs. Using tandem mass spectrometry, the project will screen newborns across five of Sri Lanka's nine provinces over two years. Strengthened by a collaboration with Metabolic Support UK, this initiative will not only enhance early detection but also focus on supporting, educating and empowering individuals living with IMDs, helping Sri Lanka establish a sustainable patient support network.

Building a Rare Disease Registry

Accurate data collection is fundamental in addressing the needs of people with rare diseases. To support this, we have joined efforts with the International Gaucher Alliance, SymetryML, A Rare Cause, and Sri Lankan colleagues to help establish a national rare disease registry. This initiative will be instrumental in identifying patients, tracking disease prevalence and informing policy decisions to enhance rare disease care.

This rare disease registry will not only improve the understanding of IMDs and other rare conditions but will also strengthen the healthcare system by facilitating better resource allocation and research opportunities. This collaboration is a crucial step toward a more structured and effective rare disease care system in Sri Lanka.

Looking Ahead

Through these initiatives, Metabolic Support UK, Dr Kankananarachchi and international partners are making progress towards improving rare disease care in Sri Lanka. By raising awareness, expanding screening, and strengthening data collection, this collaboration is building a sustainable foundation for better diagnosis, treatment and support.

We remain committed to fostering partnerships that create lasting change and improve outcomes for Sri Lanka's rare disease communities. As this work progresses, continued collaboration and investment will be key to ensuring that those living with rare conditions receive the care and support they need.

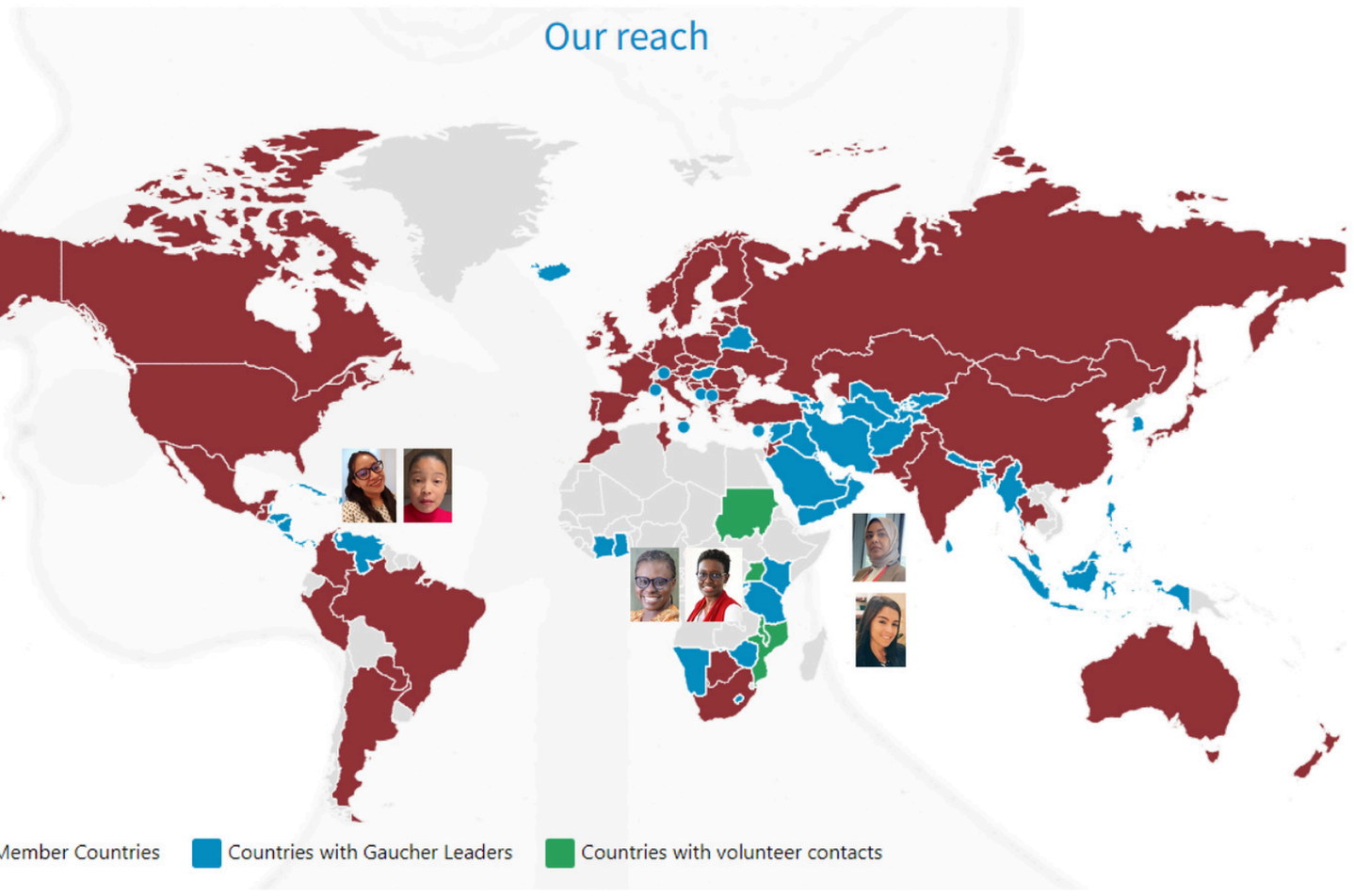
Global Collaborative Effort for Gaucher Disease:
A Step Towards Improving Healthcare

Authors

Tanya Collin-Histed, Vesna Aleksovska, Chris Hendriksz, Imalke Kankananarachchi, Tarekegn Geberhiwot, Prof Ruwanthi Perera, Ahmed Reja, Elne Conradie, Dustin O'Dell, Eric Faulkner, Ruwanthi Perera, Neil Couture

Collaborators

International Gaucher Alliance (IGA), A Rare Cause (ARC), International Working Group on Gaucher Disease (IWGGD), SymetryML, Rare Diseases Forum Sri Lanka (SLCP), Rare Disease Society Ethiopia, Metabolic Support UK



The Global Gaucher Connect Programme

The Global Gaucher Connect Programme collaborates with healthcare professionals and organizations to address challenges faced by patients and their families.

By working with volunteer advocates, the IGA has been able to meet the growing and diverse needs of our global community whilst recognising the challenges of limited resources and the importance of understanding the language and culture of a region/country is imperative to build sustainable communities.

Challenges faced by GD patients in Sri Lanka and Ethiopia

- Limited access to diagnosis
- Low awareness among healthcare providers
- Restricted access to treatment

Opportunities for improvement in Sri Lanka and Ethiopia

- Increasing Awareness: Educating healthcare professionals and the public about GD
- Improving Access to Treatment: Advocating for supportive government policies
- Building Capacity: Strengthening local healthcare systems and developing patient organisations
- Developing Clinical Networks: Connecting healthcare professionals with supportive services

Sri Lanka: A Path Towards Better Care

Dr Duminda Samarasinghe, President SLCP

- Establishing a national rare disease registry (including GD) with the support of SymetryML by using federated AI technology
- Education and awareness initiatives with the Rare Disease Forum
- Using registry data to:
  - Understand GD prevalence
  - Identify treatment needs
  - Improve care through education and awareness
  - Advocate for policy changes
- Establishing a newborn screening programme with the help of Metabolic Support UK

Visit the Metabolic Support UK website

Visit the RDF website

Visit the SymetryML website

Overcoming barriers: Bridging the gap between global and local needs in Lysosomal Storage Diseases with focus on Gaucher Disease

The Rare Disease Forum of the Sri Lanka College of Paediatricians and the International Gaucher Alliance (IGA) hosted a hybrid session on Lysosomal Storage Disorders (LSD), focusing on Gaucher Disease. The aim was to raise awareness about diagnosing and managing LSD in children and providing charitable access to enzyme replacement therapy. Held at Lady Ridgeway Hospital, Sri Lanka's top children's hospital, the webinar had over 100 in-person attendees and around 50 online participants.

Developing a registry in Sri Lanka

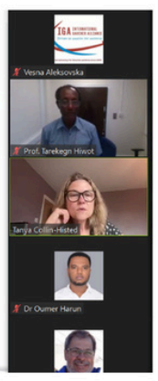
The Registry Application is a tool for healthcare professionals managing rare disease patients. It uses the FHIR format to streamline data documentation and management, enabling efficient tracking of patient encounters, observations, lab results, and diagnostics. Physicians can link their practice to multiple organizations, and its reporting dashboard offers insights into disease burden and prevalence. The registry leverages SymetryML's Federated AI platform for secure data collaboration and advanced analytics, enabling global partnerships without moving data.

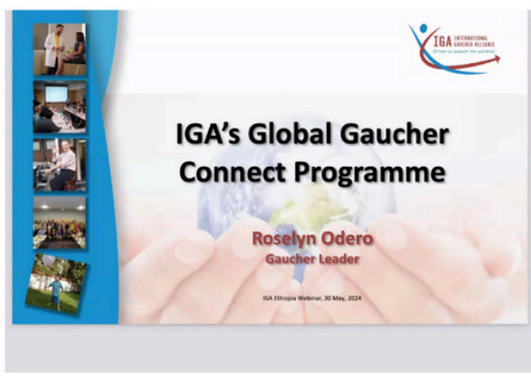
Building Hope in Ethiopia

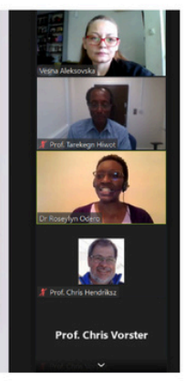
Visit A Rare Cause website

Education and awareness initiatives (webinars/workshops) with the support of A Rare Cause (ARC)

- Promoting early diagnosis with DBS cards with the support of ARC
- Advocating for access to medications
- Building partnerships with local experts and supporting development of patient group in cooperation with the doctors' organisation in Ethiopia
- Building a network in Africa and promoting sharing experiences, technologies, and knowledge through the Africa Roadmap







Online educational seminar

On May 30, the IGA and A Rare Cause organized an online seminar with the Ethiopian Endocrine and Metabolism Society on Gaucher and other inherited metabolic diseases. The event had 148 engaged participants, enhancing understanding of diagnosis and treatment challenges in Ethiopia and Africa.

Ethiopian doctors emphasized the importance of diagnosing Gaucher Disease (GD) using DBS (Dried Blood Spot) cards through A Rare Cause. Currently, Lancet Laboratories and DHL provide some logistical support, but expansion and more information are needed. Training additional local personnel is a long-term goal.

The IGA's efforts in Ethiopia and Sri Lanka are significantly impacting individuals with Gaucher disease by proactively and reactively addressing challenges and fostering a sustainable, inclusive and supportive healthcare framework for rare diseases, working together with reliable partners.

About the IGA

The IGA is a patient-led international organisation that has become the 'go to' global voice for over 90% of the Gaucher community and has built its reputation through listening to and delivering outcomes that have impacted on patients and their carers' lives. The IGA is an independent charity with a clear code of practice for working with industry. In 2024, the IGA is celebrating its 30th anniversary with a series of events throughout the year.

Visit the IGA website

Read about GD on the IWGGD site

Heel prick test in Sri Lanka: essential insights for Paediatricians

Prof Manjula Hettiarachchi- Senior Professor,
Dr Imalke Kankananarahchi - Head,
Nuclear Medicine Unit
(Newborn Screening Laboratory),
Faculty of Medicine, University of Ruhuna

The heel prick test is when blood drops are collected on a special card from baby's heel. This sampling method was first introduced by Dr Ivar Bang in 1913. However, it was renamed as Guthrie test when it was introduced to screen for metabolic diseases in large populations of neonates in Scotland by Robert Guthrie in 1963. The concept that capillary blood, obtained from pricking the heel and blotted onto filter paper, could be sent to a screening lab and tested for certain disorders that are difficult to identify without a blood test has changed the approach to screen certain disorders before it actually surfaced so that a diagnostic test to confirm such disorder can be achieved.

As the lead carer of the neonatal unit, we expect the Paediatrician to take extra responsibility to avoid any unsatisfactory samples and repeat sampling. Sometimes a repeat test is needed if the first sample was collected too early or was contaminated. An "unsatisfactory" result means that screening results cannot be accurately interpreted because of a problem with blood spot collection, inaccurate information on the newborn screening card, or a problem with the infant's age. Most unsatisfactory results occur because of problems with blood spot collection, such as collecting blood spots too small, inappropriate application of blood e.g. not soaked through, applied both sides or multi-spotted. Sometimes, blood spots were more than 14 days old by the time the laboratory received them. If an infant's blood spots are deemed unsatisfactory, our staff will call the given mobile number of the parents and request the collection of another specimen. If inaccurate information provided on the newborn screening card leads staff to question the identity of the infant.

Another reason results may be unsatisfactory may be a problem with the infant's age. Some of the newborn screening tests have age cut-offs, meaning results cannot be accurately interpreted if a child does not meet the minimum age requirement or exceeds the maximum age for that particular disorder. Depending on the issue, additional screening or testing may be recommended on the newborn screening report.

Above reasons are in addition to the challenges related to sample volume, analyte recovery, the hematocrit effect, sample homogeneity, and the characteristics of the filter paper. To minimize such issues, since early 2024 we introduced common screening card to Sri Lanka with all cards are made from Whatman SS-903 paper. Further, we strive to provide results of excellent quality. To ensure that we continue to improve our service we hold regular quality meetings, perform a detailed annual audit with CDC external quality assurance scheme.

Good quality samples should be obtained first time to prevent the need for avoidable repeats. Avoidable repeat samples can cause anxiety for parents, distress to babies and delays in the screening process. They are also a waste of resources. Therefore, we earnestly request all Paediatricians to monitor or re-visit the existing system and provide the leadership to the screening program within the hospital and to communicate with the central laboratory to meet the educational needs of the hospital and address specific screening practice questions.

9TH RARE DISEASE DAY SYMPOSIUM

7 th March 2025

New Auditorium,
Lady Ridgeway Hospital

HYBRID EVENT

Time	Topic	Speaker
08.40 am	**Welcome address : President, Rare Disease Forum**	Professor Ruwanthi Perera
08.45 am	**Keynote address : Patron, Rare Disease Forum**	Professor Harendra de Silva
08.50 am	**Address : President, Sri Lanka College of Paediatricians**	Dr Duminda Samarasinghe
09.00 am	**Skeletal Dysplasia in Children: Challenges and Advances in Diagnosis and Care**	Dr Vindya Subasinghe
09.30 am	**Beyond the Surface: Dermatological Keys to Diagnosing Rare Disorders in Children**	Professor Jayamini Seneviratne
10:00 am	**The Role of Biomarkers in Diagnosis & Monitoring of Inherited Metabolic Disorders**	Dr Ketki Kudalkar
10:30 am	***Tea break***	
	Free Paper Session	
10:50 am	Developmental Epileptic Encephalopathy due to CACNA1E mutation in a 1.5-year-old boy	
11:00 am	Functional Characterization of Genetic Variants Associated with Rare Inherited Renal Disorders in Sri Lankan Population	
11:10 am	X-linked Lymphoproliferative Disease Type 1: A rare primary immunodeficiency syndrome	
11:20 am	**Inborn Errors in Immunity**	Dr Rajiva de Silva
11:50 am	**Dietary Management of Inherited Metabolic Disorders: An Overview**	Dr Anil B Jalan
12:20 pm	**Rare Diseases in Resource-Limited Settings: Challenges and Opportunities for Improved Care**	Dr Chris Hendriksz
12:45 pm	**Vote of thanks : Secretary, Rare Disease Forum**	Dr Imalke Kankananarachchi
	Lunch	

Dr Anil Jalan
Paediatric Geneticist

Dr Ketki Kudalkar
PhD. Biotechnology

Dr Chris Hendriksz
Consultant Metabolic Paediatrician

Dr Vindya Subasinghe
Paediatric Clinical Geneticist

Prof Jayamini Seneviratne
Consultant Dermatologist

Dr Rajiva De Silva
Consultant Immunologist

IN COLLABORATION WITH

SPEAKER ABSTRACT

Skeletal dysplasia in children: Challenges and Advances in Diagnosis and Management

Dr Vindya Subasinghe
MBBS (Kelaniya), DCH, MD (Paediatrics), MRCPCH (UK)
Consultant Clinical Geneticist (Act)
Lady Ridgeway Hospital for Children

Skeletal dysplasias are a diverse group of heritable disorders characterized by abnormalities in cartilage and bone growth. These conditions lead to structural and proportional anomalies of the skeleton, affecting the long bones, spine, and skull.
The latest International Nosology of Skeletal Dysplasias (2023 revision) classifies 771 distinct conditions associated with 552 genes, reflecting the complexity of these disorders. To simplify classification, skeletal dysplasias are grouped into five gene-based categories, seven mechanism-based categories, nine broader mechanistic groups, and 20 groups based on radiological features.
Skeletal dysplasias exhibit a broad phenotypic spectrum, with variable age of onset ranging from lethal in utero presentations to asymptomatic cases. Some conditions significantly impact quality of life, leading to chronic pain, impaired mobility, and reduced life expectancy.
Common clinical features include limb and chest deformities, bowing of long bones, pathological fractures, congenital limb anomalies, proportionate or disproportionate short stature, limb asymmetry, bony lumps, abnormal gait, multiple joint dislocations, severe kyphoscoliosis, altered joint mobility (either decreased or increased), cranial nerve palsies and non-inflammatory joint pain.
A structured clinical assessment is essential for accurate diagnosis. A thorough history should include family history (three generations) and consanguinity, prenatal factors including antenatal scan findings and maternal exposure to drugs or autoimmune conditions (e.g. maternal rheumatoid disease).
Physical examination should assess: height, arm span, upper-to-lower segment ratio, presence of congenital limb anomalies and segmental limb shortening (rhizomelic, mesomelic, acromelic, or mixed), comprehensive head-to-toe examination with a focus on the spine and neurological findings, including deep tendon reflexes and plantar responses.
A skeletal survey is recommended before skeletal maturation, ensuring appropriate X-ray views are obtained. Since some radiological features evolve or disappear with age, proper interpretation is crucial. Reference atlases on bone dysplasias are valuable diagnostic tools.
Certain hallmark radiological features may lead to a definitive diagnosis (e.g. "angel-shaped" phalanges in epiphyseal dysplasia, characteristic findings in nail-patella syndrome). However, many cases require further classification into skeletal dysplasia families, such as mucopolysaccharidoses (MPS) & mucolipidosis disorders,

Achondroplasia and related conditions, Metatropic dysplasia family, Spondyloepiphyseal dysplasia congenita (SEDC) family, Diastrophic dysplasia family, Larsen syndrome and related conditions, skeletal ciliopathies, Multiple epiphyseal dysplasia (MED) family, skeletal ribosomopathies.

One of the most promising areas of research involves C-type natriuretic peptide (CNP) analogs, such as vosoritide, which has been approved for the treatment of achondroplasia. Vosoritide counteracts the effects of the FGFR3 mutation, promoting normal bone growth. Early clinical trials have shown significant increases in height velocity in children with achondroplasia.

Another promising approach is enzyme replacement therapy (ERT) for disorders like hypophosphatasia (HPP). Asfotase alfa, a recombinant alkaline phosphatase, has shown success in improving bone mineralization and reducing skeletal deformities in affected individuals.
Gene-editing technologies, including CRISPR-Cas9, are being explored as potential curative treatments for monogenic skeletal dysplasias by correcting underlying genetic mutations. Although still in preclinical stages, these approaches hold promise for long-term correction of skeletal abnormalities.

Other experimental treatments include small molecule inhibitors and repurposed drugs, such as meclozine for achondroplasia and mTOR inhibitors for disorders like fibrous dysplasia. These therapies target cellular pathways involved in abnormal bone growth.
While challenges remain, including delivery methods and long-term safety, novel therapies are transforming the landscape of skeletal dysplasia treatment, offering hope for improved quality of life and functional outcomes.

Given the complexity and heterogeneity of skeletal dysplasias, a systematic diagnostic approach integrating clinical, radiological, and genetic insights is the key to accurate diagnosis and management. Advances in imaging techniques and molecular genetics continue to improve our understanding of these conditions, paving the way for targeted therapies and personalized care.

SPEAKER ABSTRACT

Beyond the surface: dermatological keys and diagnosing rare diseases in children

Professor Jayamini Seneviratne
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Consultant Dermatologist

Scanning the surface of the skin may provide valuable clues to the underlying diagnosis. An early clinical diagnosis is of paramount importance in avoiding unnecessary investigations and provide an opportunity for the attending physician to initiate treatment in a rational and logical manner.

In many inherited diseases in childhood skin signs provide the best clues to the underlying diagnosis. Best examples are neurofibromatosis, tuber sclerosis complex and various forms of ectodermal dysplasias. Similarly in rare inherited diseases skin sign will help to narrow down the differential diagnosis and allow a working diagnosis to be established, long before the results of genetic tests are available.

In many acquired diseases, skin lesion often provide diagnostic clues and maybe included in the diagnostic criteria. Best examples are Kawasaki disease, systemic lupus erythematosus and dermatomyositis. Also, in such conditions, skin lesions maybe the presenting feature. A classical example is the redness of the face in an infant with high fever of Kawasaki disease.

Sometimes in emergency practice, an accurate diagnosis requires a battery of investigations. In such situations, an extensive search is made for dermatological signs. Examples for this include acute pseudomonas sepsis and many multiorgan inflammatory diseases.

SPEAKER ABSTRACT

Biomarkers in Inborn Errors of Metabolism

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Biomarkers play a crucial role in the diagnosis and management of Inborn Errors of Metabolism. These are analytes that indicate the presence of a disease and are linked to the clinical manifestation and outcome. Biomarkers aid not only in diagnosis and monitoring the disease progress and the response to therapeutic intervention but also play a major role in risk assessment, ascertaining the prognosis of the disease and to decide on the best therapeutic targets. The play an important role in the drug development process and are important for drug approval and clinical trials.

Biomarkers used in diagnosis or monitoring in Inborn Errors of Metabolism can be metabolites, enzymes or genetic markers linked directly or indirectly to the metabolic abnormality. Metabolites are substances directly involved in the metabolism. Abnormal levels of specific metabolites in blood, urine or other bodily fluids can indicate an IEM. Here we discuss the role of alloisoleucine as a biomarker for Maple Syrup Urine Disease. It can be monitored to ascertain the disease progression as well as response to treatment.

FGF21 levels are often used to monitor disease progression in mitochondrial disorders, especially those affecting the muscle energy metabolism. FGF21 and GDF15 are newly recognized markers for mitochondrial disorders. Many studies have found FGF-21 helpful in the diagnosis of mitochondriopathies and some studies did not find it very useful. To some extent FGF-21 helps in understanding disease progression and prognosis even in other disorders like organic acidemias.

Lysosomal storage disorders are defects in breakdown of certain substances in the cells. The biomarkers used in this group of disorders may indicate the indirect effect of abnormal storage which may lead to activation of cytotoxic or immune response pathways. Levels of chitotriosidase and CCL18 are helpful in monitoring disease progression in Gaucher's disease and Niemann Pick disease. Other examples of these biomarkers are Lyso Gb3 in Fabry disease, and soluble CD25 levels in HLH.

Chitotriosidase is expressed by phagocytes in humans and is massively produced by storage cells. It reflects the disease progress and it also correlate with therapeutic efficacy of ERT / SRT in Gaucher Disease and Niemann Pick disease.

It is easily available in many labs and is very economical. Like Chitotriosidase, CCL18 can also be monitored in patients with Gaucher and NPD. It is particularly useful in patients with Chitotriosidase deficiency. Urinary levels of both these biomarkers can also be sed for follow up studies.

Hemophagocytic-Lympho-histiocytosis (HLH) results in cellular immune dysregulation which leads to overactivation of the immune system and cytokine storm, precipitating multi- organ failure. sCD25 (IL2R)- useful inflammatory marker. It is a transmembrane protein which is up- regulated on activated T-cells. It correlates with HLH disease activity and is simple, inexpensive, and commercially available and provides quick results.

In addition to traditional biomarkers, new techniques like metabolomics and proteomics are being used to identify novel biomarkers for IEMs. These techniques allow a comprehensive analysis of all the metabolites present in a biological sample. This can lead to discovery of novel biomarkers that are more sensitive and specific to certain disorders. We discuss about the role of untargeted metabolomics like NMR spectroscopy and LC- TOF in identifying newer biomarkers with improved specificity and sensitivity. Untargeted metabolomics have helped in the discovery of newer biomarkers like 6-oxo-PIP for Pyridoxine dependent seizures with increased sensitivity and specificity. Other examples include glutamyl- glutamyl- phenylalanine and phenylalanine hexose in patients with PKU and a positional isomer of 3- methyl glutaconyl carnitine in 3-HMG CoA lyase deficiency.

Overall, biomarkers are essential tools in the diagnosis and management of IEMs. Use of biomarkers has significantly improved the diagnosis and management of IEMs. Early detection and intervention can prevent or minimize the long- term consequences of these disorders. Biomarkers can also play an important role in monitoring the effectiveness of treatment and adjusting it as needed. They provide valuable information about the specific metabolic abnormalities involved in these disorders. As research in this area continues, it is likely that more and improved novel biomarkers will be discovered, which will lead to further improvements in the field of IEMs.

SPEAKER ABSTRACT

Inborn Errors of Immunity (primary immunodefciencies)

Dr Nihan Rajiva de Silva,
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Consultant Immunologist
Head of the Department of Immunology - MRI

Primary immunodefciencies (PID), now often referred to as inborn errors of immunity (IEI), are a large heterogeneous group of disorders that result from defciencies in immune system development and/or function. IEIs can be broadly classifed as disorders of adaptive immunity (e.g., combined or humoral immunodefciencies) or of innate immunity (e.g., phagocyte and complement disorders).

Although the clinical manifestations of IEIs are highly variable, traditionally many disorders involve an increased susceptibility to infection. Research in recent years has underscored how IEI can present with features other than infection such as: severe atopy, autoimmunity, autoinfammation, lymphoproliferation, and/or malignancy resulting from immune dysregulation.

Early consultation with a clinical immunologist is essential, as timely diagnosis and treatment are imperative for preventing signifcant disease-associated morbidity and mortality. The treatment of IEIs is complex and generally requires both supportive and defnitive strategies, including but not limited to, immunoglobulin replacement therapy, antibiotic prophylaxis, immune response modifers, and hematopoietic stem cell transplantation.

This article provides an overview of the major categories of IEIs and strategies for the appropriate diagnosis and management of these disorders.

SPEAKER ABSTRACT

Dietary Management of Inherited Metabolic Disorders: An Overview

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Proprietor and Paediatrician of NIRMAN Metabolic Lab,
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Introduction:
There are over 1,900 Inborn Errors of Metabolism (IEM) listed in IEM-base, many of which can benefit from nutritional interventions. Disorders related to carbohydrate, protein, fat, and vitamin metabolism may be managed through dietary modification. A clinician must have a foundational understanding of each disorder and be prepared for emergency cases presenting with acute, life-threatening episodes.

Emergency Management:
The initial emergency management involves the supplementation of fluids and calories, based on the child's age, weight, and specific metabolic defect. Key investigations such as serum ammonia, lactate, blood sugar, blood gas, and serum electrolytes are crucial for any acute clinical presentation. If the patient can tolerate oral intake, small quantities of fluids, including glucose or glucose polymer, should be administered. Maltodextrin (100g packets costing approximately INR 25) and other products like AAMD, Calo-Lipid, Maxi Joule, and Energivit are useful. Fluid and calorie requirements should be calculated, with administration in small, frequent doses (e.g., 60–100 mL every hour or 15–25 mL every 15 minutes). Osmotic diarrhea may occur if the sugar concentration is too high. If fluid or calorie intake is insufficient, intravenous fluids (IV) with Intralipid may be necessary. Additionally, vitamins and essential amino acids may be required if prolonged IV fluids are planned. Special TPN solutions, such as BCAA-free PN, can be used for disorders like MSUD. Emergency protocols are available on the BIMDG.org website.

Long-term Management of Protein Metabolism Disorders:
While specific disorders are difficult to address in brief, common protein metabolism disorders include urea cycle defects, MSUD, PKU, tyrosinemia, and organic acidemias (e.g., propionic acidemia, methylmalonic acidemia, isovaleric acidemia). Most require the restriction of natural protein intake (typically 25-50-75% of total needs), depending on the disorder and its severity.

A common issue in developing countries is the over-restriction of proteins, which can lead to various complications, including poor growth, inadequate weight gain, poor wound healing, acrodermatitis enteropathica-like skin lesions (due to isoleucine deficiency), and micronutrient deficiencies, which can result in anemia, osteopenia, and osteoporosis.

Understanding which nutrients need to be restricted and how much of them can still be safely consumed is critical. Given the complexity, the involvement of metabolic physicians and specialized dieticians is essential for optimal care. Regular monitoring should include hemoglobin, protein, albumin, electrolytes, bicarbonate, zinc, magnesium, liver and renal function, serum ammonia, blood sugar, plasma amino acids, organic acids, carnitine with acylcarnitine, blood gases, and, in some cases, lipid profiles.

Conclusion:
The dietary management of IEM requires effective emergency care, specialized investigations, long-term management, and regular follow-up. A collaborative approach involving pediatricians, metabolic physicians, and metabolic dieticians is key to optimizing patient outcomes.

SPEAKER ABSTRACT

Rare Diseases in Resource-Limited Settings: Challenges and Opportunities for Improved Care

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Consultant Metabolic Paediatrician
At present Professor in Paediatrics, University of Pretoria, South Africa
Medical and Strategic Advisor "A Rare Cause"

A rare disease is defined as a life-threatening or chronically debilitating disease affecting fewer than 1 in 2,000 people. This is the most common definition used, but there is no specific definition appropriate for LMIC (Low- and Middle-Income Countries). Here, there are no prevalence data, and due to poor diagnostics, even diseases that are common in other parts of the world are rare due to lack of diagnostics. There is also no way of dealing with diseases unique to these areas but rare in the developed world, such as tuberculosis. There is a lack of infrastructure both for local general services and for medical diagnostics and service delivery. Isolation and poor transport connections limit the easy carriage of biological samples, and once a diagnosis is confirmed from external services, frequently the therapies are either unlicensed or unavailable. The list goes on, but this also brings unique opportunities for innovation to drive service delivery.
Lessons learned from other LMICs can be shared to help develop sustainable services. Developing local networks helps to build caring networks and knowledge sharing. There are ample opportunities to use alternative models of care, such as the use of artificial intelligence to provide some supporting services. The use of near-patient testing and greater reliance on traditional medicine frequently leads to more holistic care.

Developing services for rare diseases can also help support model building for other services by using the analogy of doing the hardest things first in small populations.

Technology plays a major part in developing services in LMICs, as support could be delivered virtually, for example, international experts supporting virtual clinics.

Sadly, society is geared towards the utilitarian principle of delivering the greatest good to the greatest number, leading to the marginalization of minority groups like rare disease patients. Very close cooperation with patient groups is needed to ensure patients and families are protected.

With the development of new gene-based therapies, there is an increasing need to find naïve patients, and these are available in LMICs, opening the door for clinical trials and the development of new services.

From experience, there are no challenges in LMICs for rare disease patients but only opportunities, as these communities are used to converting adversity into opportunity.

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ABSTRACTS OF ORAL & POSTER PRESENTATIONS

DEVELOPMENTAL EPILEPTIC ENCEPHALOPATHY DUE TO CACNA1E MUTATION IN A 1.5-YEAR-OLD BOY

Pyara Rathnayeke, Achala Wanasinghe, Hashan Pathiraja, Bimsara Abeyratna, Hasini Hewapathirana

Introduction:
Developmental epileptic encephalopathy (DEE) is characterised by intractable seizures, developmental delay, and regression, with a complex genetic basis. Genetic testing is crucial for diagnosis and treatment, particularly in low-resource settings. This case highlights the role of genetic testing in a child with DEE, leading to targeted therapy and improved outcomes.

Description:
A 1.5-year-old boy with global developmental delay presented with speech and motor regression, along with recurrent chest infections. He developed autistic features and self-harming behaviours. His family history included a paternal uncle with developmental delay and epilepsy. Despite normal initial investigations, including MRI and metabolic screening, EEG showed severe epileptic activity. Multiple drug trials showed limited success. Whole exome sequencing identified a pathogenic variant in the CACNA1E gene.

Investigations (if any):
The genetic test revealed a loss-of-function pathogenic variant in the CACNA1E gene, which encodes a voltage-gated calcium channel. EEG findings were indicative of epileptic encephalopathy, with a high spike burden.

Progress:
Initial treatments with anti-epileptic drugs showed variable responses, with worsening symptoms on some medications. The patient was switched to acetazolamide, which significantly improved behaviour, speech, and feeding. His self-harming behaviours decreased, and he gained some independence in feeding and mobility.

Discussion:
This case underscores the importance of genetic testing in diagnosing DEE and guiding therapy. Early identification and personalised treatment can improve outcomes, even in resource-limited settings. Despite ongoing challenges, such as persistent EEG abnormalities, the child’s progress demonstrates the potential of tailored interventions in managing rare genetic conditions.

FUNCTIONAL CHARACTERIZATION OF GENETIC VARIANTS ASSOCIATED WITH RARE INHERITED RENAL DISORDERS IN SRI LANKAN POPULATION: A PAEDIATRIC PERSPECTIVE

Fathima Rizna K, D P Bhagya Hendalage, Nilaksha Neththikumara, Dineshani Hettiarachchi, Hasani Hewavitharana, Vajira H.W Dissanayake

Introduction Rare inherited renal disorders significantly impact paediatric patients, leading to chronic complications that reduce quality of life. This study aims to validate novel variants and variants of uncertain significance (VUS) identified through Whole Exome Sequencing (WES) to better understand their genetic causes, molecular mechanisms, functional impacts, and genotype-phenotype correlations.

Description: This study included 14 paediatric patients (age between 6 months to 11 years), with 10 genetically confirmed and 4 unconfirmed cases of rare inherited renal disorders. Patients were selected from a larger database of adult and paediatric cases. WES identified pathogenic, likely pathogenic, novel, benign variants, and VUS. Healthy controls were included for comparative analysis.

Investigations (if any): WES analysis identified novel and VUS variants associated with inherited renal disorders. Variants were found in the following genes AVPR2 (153171085, p.Ala42Glu), CLCN5 (49846413, p.Glu281Gly), NPHS2 (179526364, p.Ile179Asn), OCRL (128692669, p.Gln167*), AVPR2 (153171095, p.Ile46fs), DAAM2 (39855301, p.Arg665Cys), PKD1 (2115394, p.Pro694Leu). Protein modelling and bioinformatics tools were used to predict pathogenicity, protein structure, and functional impact of these variants. Candidate variants were prioritized for experimental validation based on their predicted clinical significance.

Progress: Gene expression analysis helps in validating the functional impact of these variants. Real-time PCR compares gene expression levels in affected paediatric patients and healthy controls. Preliminary results indicate altered expression in key genes, supporting their involvement in disease development.

Discussion: This study highlights the importance of a molecular diagnosis in rare inherited paediatric renal disorders. Furthermore, validating genetic variants which are novel or variants of uncertain significance can bridge the gap in understanding their functional impact.

X-LINKED LYMPHOPROLIFERATIVE DISEASE TYPE 1: A RARE PRIMARY IMMUNODEFICIENCY SYNDROME

Kirusan S, Anura Jayawardana, Jeewanthi Abeysinghe, Chandima Thevarapperuma, Rajiva De Silva, Naveesha Perera, Amarasinghe AAGP, Arabi S

Introduction: X-linked lymphoproliferative disease type 1 (XLP-1) is a rare primary immunodeficiency syndrome, characterized by increased susceptibility to Epstein-Barr virus (EBV) infection and pathologic predisposition to Hemophagocytic lymphohistiocytosis (HLH).

Description: Previously well, 1-year-old boy, first-born child to healthy non-consanguineous parents, presented with pyrexia of unknown origin, maculopapular rash and mild hepatosplenomegaly. A family history of 6 male children dying at the age of 1-2 years following prolonged febrile illnesses on the maternal side of the family (distant cousins) was also noted.

Investigations (if any): Pancytopenia with severe neutropenia (ANC < 100), hyperferritinemia, elevated triglycerides, and bone marrow biopsy revealed increased histiocytic activity. Furthermore, EBV PCR was tested positive with high viral load. The primary immune deficiency panel revealed hemizygous missense variant in exon2 of SH2D1A gene (chrX:g.124365790T>G; Depth: 44x).

Progress: The initial treatment included high-dose corticosteroids and intravenous immunoglobulins, as well as colony stimulating factor for severe neutropenia, and broad range antibiotics/antifungal medication was administered prophylactically. Due to the poor response, escalated to cyclosporin and Rituximab, and the child recovered completely clinically with normal hematological parameters and is now awaiting a bone marrow transplant.

Discussion: Prolonged febrile illness with severe pancytopenia is one of the most common symptoms of HLH, and a positive family history with only affected males and severe EBV infection point to XLP-1. Rituximab is effective in treating HLH caused by EBV and XLP-1. Bone marrow transplant can be curative.

A NEONATE WITH INCONTINENTIA PIGMENT

S. Zulaiha Zuhair, P. M. Arshath Ahamed

Introduction: Incontinentia Pigmenti (IP) is a rare X-linked dominant disorder affecting ectodermal tissues, often misdiagnosed in the neonatal period. We present a case of a term baby girl who initially presented with an erythematous rash and seizures, highlighting the diagnostic challenges in early infancy.

Description: A day-3-old baby girl presented to us with a generalized erythematous rash with occasional blisters, initially thought to be extensive erythema toxicum. The following day, she developed short-lasting convulsions. Empirical treatment was started with antibiotics, anti-viral drugs and anti-seizure medications. The mother had no risk factors for sepsis, no previous miscarriages, and the antenatal and postnatal periods were uneventful, and there was no family history of metabolic diseases. All blood investigations were normal. The convulsions were brought under control within 24 hours, and over the next few days, the rash evolved into a typical vesicular rash, followed by a hyperpigmented rash along the lines of Blaschko. The typical skin manifestation, with paediatric and dermatology opinion, together with a high eosinophil count, favoured a clinical diagnosis of Incontinentia Pigmenti.

Investigations (if any): Septic screen, blood glucose and electrolytes were normal. Skin scraping revealed giant cells. High eosinophil count was noted, and an ultrasound of the brain showed cerebral oedema. HSV type 1 and 2 and VZV DNA PCR were all negative. IgM antibodies for JEV were also negative.

Progress: She became convulsion-free, with resolving cerebral oedema. Currently on follow-up with the paediatric, ophthalmology and dermatology teams, with persisting hyperpigmented streaks along lines of Blaschko at 2 months of age. Dental follow-up to be planned after 6 months.

Discussion: Incontinentia Pigmenti is an extremely rare X-linked dominant genetic disorder due to mutations in the IKBKG gene, causing ectodermal manifestations evolving through 4 stages. Severe cases may include CNS manifestations. Prompt identification and treatment pave the way for better multidisciplinary management and genetic counselling.

PALATAL MUCORMYCOSIS IN AN IMMUNOCOMPETENT INFANT FOLLOWING DENGUE HAEMORRHAGIC FEVER

Hashan Kavinga Pathiraja, Rakitha Munasinghe, Rasika Gunapala, Sandini Gunaratne, Jerrad Fernando, Chethana Pemasiri, Primali Jayasekara

Introduction:

Mucormycosis, a life-threatening fungal infection, is predominantly seen in immunocompromised individuals. While rare in children, it can occur following severe illnesses, and clinical manifestations often lead to delayed diagnosis. This case highlights the development of palatal mucormycosis in an immunocompetent infant following a severe episode of dengue haemorrhagic fever (DHF).

Description:

We report a 4-month-old Sri Lankan male infant who developed palatal mucormycosis after being treated for DHF, which progressed to multi-organ failure. The patient had no history of metabolic or immunodeficient conditions. A black, necrotic patch appeared on his palate following recovery from DHF, prompting further investigation. Histological examination confirmed the diagnosis of mucormycosis.

Investigations (if any):

The histological examination confirmed the diagnosis, which identified broad aseptate fungal hyphae. Despite negative fungal cultures, the infection was confirmed as mucormycosis. Imaging studies, including contrast-enhanced CT and MRI, demonstrated bone involvement, though no spread to the brain or orbit occurred.

Progress:

The infant received a prolonged course of IV liposomal amphotericin B, totalling 275 days, following surgical debridement. The longest treatment duration for mucormycosis was reported in Sri Lanka; the patient successfully recovered with no evidence of fungal growth after 5 months of treatment.

Discussion:

This case underscores the potential for mucormycosis to develop in previously healthy children after critical illness, highlighting the importance of early diagnosis and aggressive treatment. The challenges of managing such rare infections in paediatrics are discussed, including the role of multi-disciplinary care and prolonged antifungal therapy.

A FAMILY WITH WHITE FORELOCK OF HAIR

Rukshani WM, Samarawickrama BY, Mohotti SL, Sandaruwan WAA, Dehigama D, Hapuarachchi GK

Introduction:White forelock is a depigmented region of hair located in the anterior mid-line of the scalp. It can be congenital or acquired and may occur as a part of syndrome. This case report presents an infant exhibiting clinical features of Waadenburg Sndrome (WS) along with a strong family history of white forelock of hair. WS is a rare autosomal dominant disease affecting 1 in 40000 births, characterized by pigmentation defects of skin, hair and eyes associated with hearing loss and defects of neural crest-derived tissues.

Description: A baby girl born via an uncomplicated vaginal delivery, as the second product of non consanguineous parents was noted to have a distinct localized area of grey hair in the anterior scalp. On examination, a broad nasal root and localized areas of hypopigmented skin over the abdomen were identified. Further evaluation revealed a strong family history of white forelock of hair associated with skin hypopigmentation. Her father, sister and several paternal cousins had premature grey hair over the anterior scalp since their birth. None of them had hearing or vision problems.

Investigations (if any): The infant underwent hearing and visual assessments, which revealed no abnormalities. However, genetic studies were not carried out on this patient.

Progress: It was planned to review her at the clinic regularly to monitor the growth, development and possible complications of the Waadenburg syndrome.

Discussion: Infants with white forelock of hair and skin hypopigmentation should be tested for hearing and vision impairment since early diagnosis with timely intervention is important for the psychological and intellectual development of children with Waardenburg Syndrome.

UNRAVELING A RARE DE NOVO CHROMOSOMAL TRANSLOCATION: A CASE OF AUTISM WITH DYSMORPHISM AND POOR THERAPEUTIC RESPONSE

Hashan Kavinga Pathiraja,Sachitha de Silva, Buddhima Mannapperuma, Dilini Vipulaguna

Introduction:

Autism spectrum disorder (ASD) is a complex neurodevelopmental condition with multifactorial aetiologies. Genetic anomalies, including chromosomal translocations, are rarely identified as underlying causes. We present a child with a de novo translocation between chromosome 1 and chromosome X, associated with severe autistic features, intellectual disability, and dysmorphic characteristics, highlighting the role of karyotyping in understanding poor therapy response.

Description:

A 6-year-old girl presented with severe ASD features, including significant communication deficits, repetitive behaviours, and poor social interaction. She was non-verbal, exhibited self-injurious behaviours, and had a below-average IQ. Dysmorphic features included a short neck, low-set ears and a low hairline. However, typical features of Turner syndrome, such as a broad chest with wide-spaced nipples and increased carrying angle of elbows, were not seen. Standard behavioural and pharmacological interventions yielded limited improvement.

Investigations (if any):

Karyotyping revealed a de novo unbalanced translocation between chromosome 1 and chromosome X: 46, xx, der(x) t(x:1) (q28; q31). USS pelvis revealed a uterus with bilateral ovaries. Her echocardiogram was normal.

Progress and Discussion:

This chromosomal translocation likely contributed to the neurodevelopmental phenotype and therapy resistance. X-chromosome-linked disruptions are increasingly recognized in ASD, though reports remain scarce. The karyotype findings helped the parents to understand the suboptimal outcomes for the ongoing therapies. We offered karyotype for the parents, but they denied it as they ot have any plans for future pregnancies and are on contraception. However, the parents were advised that the child should be closely followed up for the progression of her puberty and fertility.

CORNELIA DE LANGE SYNDROME

Walpola CP, Kankananarachchi I, Wimalasena GADNB

Introduction: Cornelia de Lange syndrome is rare genetic disorder which is characterized by peculiar facial appearances, limb anomalies, development delay, growth retardation. 99% of cases are sporadic and occasionally have autosomal dominant inheritance. This syndrome is mainly a clinical diagnosis and is confirmed by molecular genetic testing.

Description: 2-year-old girl, second child of the family, born to healthy nonconsanguinous parents. Intrauterine growth retardation was observed and delivered at 35 weeks of period of gestation with 1.3 kg birth weight. She has a distinctive facial appearance, predominantly synophrys, well-defined eyebrows with long eye lashes, long philtrum, short nose, flat nasal bridge with anteverted nares and widely spaced teeth with a thin vermilion border of upper lip. There is bilateral ectrodactyly. Hypertrichosis is also noted in this child. She is hyperactive and sensory sensory-seeking behaviour. However, eye anomalies, microphthalmia, and refractive errors are absent in this child, which are characteristic features of this syndrome. There is no history of seizures. She has a significant speech delay, with only polysyllable babbling. There is microcephaly, and all growth parameters are less than the 3rd centile.

Investigations (if any): Karyotyping is not performed. 2D echo showed small ASD. Ultrasound brain revealed as absent corpus callosum. Left left-sided kidney showed less demarcation in the cortico-medullary junction on USS KUB.

Progress: She is currently under physiotherapy, speech therapy and occupational therapy follow up.

Discussion: Early intervention with involvement of multidisciplinary team will provide better outcome for the child.

LONG QT SYNDROME TYPE C WITH STRONG FAMILY HISTORY OF SUDDEN CARDIAC DEATH

Sandaruwan WAA, Oorloff VT, Rajapaksha C, Rajapaksha A, Rajapaksha S, Rangunathan IR, Lekamwattage

Introduction: QTc prolongation can be congenital or acquired. Acquired causes may be secondary to certain drugs, electrolyte disturbances and certain underlying medical conditions. A QTc interval of >0.47seconds is highly indicative whilst QTc >0.44 is suggestive of Long QT syndrome (LQTS). LQTS is manifested by syncope or cardiac arrest. Main precipitants are emotional and physical stress. If symptomatic patients are left untreated. Mortality rates rise to 21% within a year of first syncope, as with adequate treatment, mortality is around 1%. 90% of the positive genetic studies are mainly due to mutations in either KCNQ1 (LQT1), KCNH2 (LQT2) or SCN5A (LQT3).

Description: A 6-year-old girl, born as the 4th child of the family, presented to the ward with shortness of breath. She has been previously healthy and has not experienced similar symptoms in the past. Two of her siblings passed away at the age of 12 due to sudden cardiac arrest. Both instances had occurred while they were asleep during the early morning hours without any prior history. There is a similar history of death related to one of their paternal uncle's at 12 years of age. The systemic examination was normal.

Investigations (if any): An electrocardiogram was done and found to have normal rhythm, but a QTc of 0.560 sec and echocardiogram showed a structurally and functionally normal heart. 24-hour Holter monitoring was suggestive of long QTc syndrome. Secondary causes of long QTc syndrome were excluded with drug history and serum investigations.
Genetic studies showed mutations at SCNSA, revealing a phenotype of autosomal dominant long QT syndrome type. Hearing impairment was not associated. Family screening was done. ECG showed normal Qtc interval concerning her parents and brother.

Progress: The child underwent cardiac sympathetic denervation.
Discussion: This was an uncommon presentation which could have been easily missed in a busy outpatient setting. Long QT syndrome is a condition that causes sudden cardiac death, therefore, screening is needed in every child presenting with syncope, chest pain or even afebrile seizures. A basic step initiated with an electrocardiogram followed by calculation of QTc can be used as a screening tool. This case scenario also implies the importance of a good family history, which revealed multiple sudden cardiac deaths of the closest family members and the need for careful and thorough evaluation of patients with such a background.
Long QT syndrome needs a multi-disciplinary team management including a pediatrician, pediatric cardiologist, Electrophysiologist, Genetician, and cardiothoracic surgeon.
Management strategies include rate control with beta blockers and placement of implantable defibrillator and cardiac sympathetic denervation.

9P DELETION SYNDROME (OPTIZ TROGONOCEPHALY SYNDROME)

Sandaruwan WAA, Dehigama D, Lakmali VGD, Hewawitharana H

Introduction: A 9p deletion is a rare genetic condition in chromosome 9, with part of the short arm missing. occurs in one in 50,000 newborn babies, of whom two-thirds are girls.9p deletion means that the short arm of chromosome 9s has broken; the breakup point can be anywhere. with this 9p deletion showing one or more symptoms like developmental delay, particularly speech and language delay unusual head shape with or large, rounded forehead or a forehead that points forward like a keel due to premature fusion of the metopic suture. low muscle tone. Others are heart disease, hernias, spinal curvature and respiratory problems.

Description: 1 year and 6 month old baby girl born to healthy non-consanguineous parents past history of three miscarriages; one is a T1 miscarriage and the other two 2nd second-trimester miscarriages. This baby was born at 37 weeks after abdominal cerclage; the birth weight was 2750 grams and the baby had multiple dysmorphic features. And history of OS ASD and constipation, hip dysplasia, on examination shows trigonocephaly, flat nasal bridge, mild hypotelorism, epicanthal fold, high arch palate, abnormal small ears, abnormal left thumb flexure deformity, thin upper lip, micrognathia, short neck, anteriorly displaced anus. On investigation basic investigation normal, Echo small OS ASD, MRI brain shows trigonocephaly with small AP diameter of frontal lobes, likely due to early metapoic sutures fusion. rest of the brain normal. Genetic testing of baby shows 46, XX, del (9)(p15.2-pter), Father and mother's karyotyping normal. USS KUB normal.

Investigations (if any): genetic test, MRI Brain, USS KUB
Progress: the child is following up

Discussion: As a syndromic baby, the disciplinary team involving management. Neonatal team at birth as pressures baby should have big role in management, Genetist, paediatric cardiologist, paediatric neurologist and surgeon with therapist team has started early stimulation. There is no cure for this genetic pattern. Long term follow-up is necessary for the achievement of a good outcome.

CASE OF GUM BLEEDING AND PALPABLE PURPURA SECONDARY TO TOXOCARIASIS: RARE MANIFESTATION

Dhara Hapuarachchi, Gimhanie Geethaswari, Sanduni Wijesinghe, Umani Senavirathne, Ruwanthi Perera

Introduction:

Toxocara canis primarily infects dogs. Humans are accidental hosts through ingestion of contaminated fomites. Common clinical manifestations of human toxocariasis include visceral larva migrans, ocular larva migrans and overt toxocariasis. Bleeding diathesis is rare in children.

Description:

8 years 8-year-old boy previously well presented with gum bleeding and generalized skin bruises for 2 days with no preceding trauma, fever or other bleeding manifestations. Examination revealed palpable purpuric patches in all four extremities, buttocks and the back of the chest, petechial patches on the hard palate and cervical lymphadenopathy. There was no organomegaly. An ophthalmology referral was made, and ocular toxocariasis was excluded.

Investigations (if any):

FBC revealed WBC of 26*109/L with 53% eosinophils (absolute count 14*109/L), Hb 12.1g/dL and platelet count of 227*109/L. Blood picture showed leukocytosis with severe eosinophilia and few degranulated eosinophils but no abnormal cells. Coagulation studies revealed prolonged APTT with normal PT and bleeding time. His toxocara IgG and IgM were positive.

Progress:

He was treated with oral albendazole for 7 days and was followed up in the clinic in one week time. There, he was fully asymptomatic with no evidence of skin bruises, gum bleeding or palatal petechiae. His eosinophil count had come down to 1.12*109/L.

Discussion:

This case highlights the possibility of parasitic infections and severe eosinophilia mimicking bleeding disorders in childhood. Several mechanisms are postulated for bleeding in eosinophilia, namely: eosinophil degranulation causing endothelial damage, eosinophilic vasculitis, hypercoagulability leading to consumptive coagulopathy and suppression of megakaryocytes leading to thrombocytopenia and thrombasthenia. Sinister causes of skin bleeds always need exclusion.

CHARGE SYNDROME PRESENTING WITH FATAL OUTCOME IN EARLY NEONATAL PERIOD: A CASE REPORT

SMITH A J R O, WIJERATHNE W A C M S, KEKULAWALA K R C P, WIJERATHNE W U C J

Introduction:
CHARGE syndrome is a rare genetic disorder characterized by Coloboma, Heart defects, Atresia of the choanae, Retardation of growth, Genital abnormalities, and Ear anomalies. We present a case of a newborn with CHARGE syndrome who succumbed to 72 hours of life due to multiple congenital anomalies.

Description:
An infant was born at 36 weeks gestation to a 26-year-old multipara mother via normal vaginal delivery who has had antenatal ultrasound brain evidences of Holoprosencephaly. Birth weight was 2.065 kg (<3rd percentile). The infant presented with respiratory distress immediately after birth, requiring intubation. Physical examination revealed bilateral colobomas, low-set malformed ears, bilateral choanal atresia, apparent micrognathia, abnormal faces, limb anomalies, ambiguous genitalia and imperforated anus.

Investigations:
Echocardiogram revealed large peri-membranous VSD, moderate PDA, small ASD and severe pulmonary hypertension. A brain ultrasound showed absent corpus callosum and a single ventricle that is suggestive of Holoprosencephaly.

Progress:
Despite aggressive respiratory support and medical management, the clinical condition deteriorated rapidly. Multiple apnoeic episodes occurred, which was complicated by worsening of cardiac functions. The neonate died at 72 hours of life due to cardiorespiratory failure.

Discussion:
This case highlights the severe entity of the CHARGE syndrome spectrum, where multiple congenital anomalies led to early mortality. The combination of choanal atresia, complex cardiac defects and Holoprosencephaly significantly contributed to the poor prognosis. Early recognition and multidisciplinary management are crucial, though some cases may prove fatal despite intervention. This case adds to the literature on severe presentations of CHARGE syndrome in the neonatal period.

MEGALOBLASTIC ANAEMIA IN EARLY INFANCY: A CASE REPORT

SMITH A.J.R.O, NILAM J.M., KULUGAMMANA M.B.C.N., WIJERATHNE W.A.C.M.S., ABEWARDANA N.S.

Introduction:
Megaloblastic anaemia in early infancy due to vitamin B12 deficiency is a rare condition. Vitamin B12 deficiency in paediatric populations can cause severe neurological and haematological consequences. During the exclusive breastfeeding period, the only source of vitamin B12 is breast milk. Maternal dietary practices, such as strict veganism, can significantly impact infant nutritional status due to limited B12 sources. This case report highlights the importance of nutritional counselling and monitoring for infants born to mothers following restrictive dietary regimens.

Description:
A 6-week-old male infant was presented with symptoms of vomiting and poor weight gain. The infant's mother followed a strict vegan diet throughout pregnancy and during breastfeeding, with minimal supplementation. Physical examination revealed pallor and growth retardation.

Investigations:
Laboratory investigations demonstrated Haemoglobin 8 g/dL, MCV 100 fL, and serum vitamin B12 levels less than 60 pg/mL of both mother and infant. Peripheral blood smears of both mother and infant revealed characteristic megaloblastic changes.

Progress:
The infant was treated with intramuscular vitamin B12 supplementation, and dietary counselling was given to the mother. Follow-up assessment in 3 months after treatments demonstrated normalized haemoglobin and MCV with improvement of growth.

Discussion:
This case highlights the critical need for nutritional monitoring and B12 supplementation for mothers following restrictive dietary patterns. Early detection and intervention are crucial in preventing potentially irreversible neurological and haematological complications associated with vitamin B12 deficiency in infants.

CARBAMAZEPINE INDUCED DRESS SYNDROME: A COMPREHENSIVE CASE REPORT

SMITH A.J.R.O, NILAM J.M., WIJERATHNE W.A.C.M.S., KULUGAMMANA M.B.C.N., ABEWARDANA N.S., MUDALIGE J.M.H.C.

Introduction:
Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome is a severe, potentially life-threatening adverse drug reaction with significant morbidity, particularly in paediatric populations. This case report describes a 12-year-old male who developed a classic presentation of DRESS syndrome following carbamazepine administration for focal convulsions management.

Description:
The patient, previously healthy, was prescribed carbamazepine for focal convulsions. Two weeks after initiating treatment, he developed a widespread, erythematous maculopapular rash covering approximately 60% of his body surface area. The rash was accompanied by significant pruritus, facial oedema, and systemic symptoms, including fever (>38.5 °C), fatigue, conjunctival injection, generalized lymphadenopathy, hepatosplenomegaly lasting for one week. RegiSCAR score was six, which indicated the definite diagnosis of DRESS syndrome. Carbamazepine was immediately discontinued. High dose of antihistamines was added for symptomatic relief. Systemic corticosteroid therapy was started with prednisolone, Supportive care was given with intravenous hydration.

Investigations:
Laboratory investigations revealed lymphocytic leucocytosis, severe eosinophilia and elevated transaminases with increased INR. Renal function tests were normal.

Progress:
The patient showed gradual improvement over two weeks of treatment. Skin lesions began to resolve, Facial swelling was reduced, and the systemic symptoms subsided. Follow-up at one month revealed complete resolution of all symptoms and signs with normalization of FBC and liver function tests.

Discussion:
This case underscores the importance of early recognition, prompt intervention, and systematic management of DRESS syndrome in paediatric patients. It highlights the potential severity of medication-induced hypersensitivity reactions and the necessity for vigilant clinical monitoring during pharmacological treatment.

A RARE CAUSE FOR DEVELOPMENTAL DELAY WITH HYPOTONIA – A CASE REPORT OF CONGENITAL DISORDER OF GLYCOSYLATION TYPE 1A

WIJERATHNE W.A.C.M.S, HETTIARACHCHI L., SMITH A.J.R.O.

Introduction:
Congenital Disorders of Glycosylation (CDG) represent a complex group of inherited metabolic conditions characterized by impaired protein and lipid glycosylation. CDG type 1a (CDG-Ia), caused by phosphomannomutase 2 (PMM2) gene mutations, and it is the most common subtype, which is inherited autosomal recessively. This disorder disrupts N-linked glycoprotein synthesis, leading to multi-systemic developmental complications affecting neurological, muscular, and metabolic functions.

Description:
A 5-year-old girl was initially presented at the age of six months with global developmental delay and multiple clinical manifestations. Clinical examination revealed profound hypotonia and characteristic facial dysmorphism, including a short nose, long philtrum, large ears, strabismus and hepatomegaly.

Investigations:
Comprehensive metabolic screening was done, and genetic testing confirmed a heterozygous pathogenic variant in the PMM2 gene, which is consistent with CDG type 1a.

Progress:
Additional complications developed while the condition progressed, including moderate intellectual disability, recurrent respiratory infections, and acute liver failure followed by chronic liver cell disease with coagulation abnormalities, chronic myopathy and seizures. As current treatment remains supportive, the child is managed conservatively, focusing on supportive care, nutritional supplementation, and multidisciplinary intervention to address neurological, haematological and developmental challenges.

Discussion:
This case highlights the complex clinical spectrum of CDG-Ia, emphasising the importance of early diagnosis, comprehensive multidisciplinary management, and genetic counseling. While current treatment remains supportive, Management should be intensified with worsening neurological symptoms, growth failure, cardiac issues, endocrine problems and abnormal lab values requiring urgent care.

CLINICAL PRESENTATION AND MANAGEMENT OF A PATIENT WITH MUCOPOLYSACCHARIDOSIS TYPE 4-MOQUIO SYNDROME: A CASE REPORT

WIJERATHNE W.A.C.M.S HETTIARACHCHI L., KAPUGE G.K.K.M., SMITH A.J.R.O

Introduction:

Mucopolysaccharidosis (MPS) represents a group of rare inherited metabolic disorders due to mutations of genes coding for lysosomal enzymes causing defective lysosomal enzyme function which results in progressive accumulation of glycosaminoglycans in body tissues. These genetic conditions cause multisystem complications affecting physical development and neurological function.

Description:

A 3-year-old male child born to consanguineous parents was presented with symptoms of chronic diarrhoea and, on further evaluation, was found to have mild intellectual impairment with prominent speech delay. Clinical examination demonstrated a relatively large head, coarse facial features, enlarged tongue, and short stature with a relatively short upper segment. Skeletal radiographs showed dysostosis multiplex and lateral blunting of vertebral bodies of the lumbosacral spine. The ophthalmology referral did not show evidence of corneal clouding. The cardiac echocardiogram was normal. The child's IQ level is normal. Serum enzyme assay is unavailable in Sri Lanka to differentiate the type, however, the overall clinical picture is compatible with MPS type IV.

Investigations : Urinary glycosaminoglycan levels were significantly high.

Progress:

As enzyme replacement therapy is not available in Sri Lanka, the child was managed with genetic counselling, speech therapy and Orthopaedic interventions. Long-term follow-up was arranged with the involvement of multidisciplinary teams.

Discussion:

This case emphasizes the critical importance of early diagnosis and comprehensive management of MPS disorders. Timely intervention through genetic counselling and multidisciplinary care can modify disease progression and improve the patient's quality of life. Continued research and advanced therapeutic strategies offer hope for better management of these complex genetic conditions.

KIKUCHI- FUJIMOTO DISEASE IN A PAEDIATRIC PATIENT: A CASE REPORT

WIJERATHNE W.A.C.M.S , HETTIARACHCHI L., SMITH A.J.R.O.

Introduction:
Kikuchi disease is a rare, self-limiting inflammatory condition. It is also called as histiocytic necrotizing lymphadenitis. It is predominantly affecting young individuals and characterized by cervical lymphadenopathy, fever, and systemic symptoms. Although uncommon in children, understanding its clinical presentation is crucial for accurate diagnosis and management.

Description:
A 9-year-old boy presented with a one-week history of fever and bilateral shotty cervical lymphadenopathy, right epitrochlear and right inguinal lymphadenopathy. On physical examination, the largest was the epitrochlear lymph node, which was non-tender and measured 2.5 cm in size. Haematological and biochemical markers were normal. Ultrasound scan of lymph nodes showed reactive changes. Ultrasound scan of the abdomen was normal. A lymph node biopsy was performed on the epitrochlear lymph node, which revealed pathognomonic histological features, including geographical areas of coagulative necrosis and histiocytic proliferation. Bone marrow biopsy was normal. Serological tests for infectious agents and autoimmune markers were negative, supporting the diagnosis of Kikuchi disease. Differential diagnoses such as lymphoma and infectious lymphadenitis were systematically excluded through comprehensive clinical and pathological evaluation.

Progress:
The patient was managed conservatively with symptomatic treatment, and complete resolution of symptoms occurred in six weeks.

Discussion:
This case report emphasizes the importance of recognizing Kikuchi-Fujimoto disease in paediatric populations. The self-limiting nature of the disease and favourable prognosis highlight the significance of accurate diagnosis and appropriate clinical management. Clinicians should maintain a high index of suspicion when encountering unexplained cervical lymphadenopathy in children, ensuring comprehensive diagnostic approaches to exclude more serious conditions.

HETEROZYGOUS APOA5 VARIANT CAUSING EARLY-ONSET HYPERTRIGLYCERIDEMIA IN AN INFANT: A CASE REPORT

WIJERATHNE W A C M S, **SMITH A J R O**, **HETTIARACHCHI L**

Introduction:
Apolipoprotein A5 (APOA5), encoded by the APOA5 gene on chromosome 11q23, is crucial in triglyceride metabolism through the enhancement of lipoprotein lipase activity and reduction of hepatic VLDL-triglyceride production. Variants in APOA5 are associated with familial hypertriglyceridemia, increasing risks of premature atherosclerosis and acute pancreatitis. While heterozygous forms show variable penetrance, early identification in paediatric populations is vital as they can manifest with severe hypertriglyceridemia in infancy.

Description:
A 12-month-old term baby boy born to non-consanguineous parents presented with a history of poor weight gain and global developmental delay with dysmorphic features of bulbous nasal tip, broad forehead and triangular face. Incidentally found to have lipemic blood during routine screening. On eye examination, Lipemic vessels noted. Family history revealed early-onset cardiovascular disease in the maternal grandfather.

Investigations:
Initial laboratory findings showed severely elevated triglycerides level of 3725 mg/dL, Total cholesterol level of 270 mg/dL and HDL level of 4 mg/dL. Normal liver and thyroid function tests. Genetic testing revealed a heterozygous variant in the APOA5 gene (c.1131T>C).

Progress:
The patient was treated with Omega three fatty acids, Statins and fenofibrates. A review after 2 months showed a reduction in triglycerides to 836 mg/dL. Regular monitoring was established with a multidisciplinary team involvement.

Discussion:
This case emphasizes the significance of genetic factors in paediatric hypertriglyceridemia. Early identification and dietary intervention are crucial for preventing complications such as pancreatitis and cardiovascular disease. Long-term follow-up will be essential to optimize management strategies with the help of genetic counselling as most of the cases are autosomal recessively inherited.

EARLY-ONSET JOUBERT SYNDROME: A CASE OF DEVELOPMENTAL DELAY AND CEREBELLA

WIJERATHNE W A C M S, SMITH A J R O, HETTIARACHCHI L

Introduction:
Joubert syndrome (JS) is a rare autosomal recessive genetic disorder with an estimated incidence of 1:80,000 to 1:100,000 live births. It is characterized by a specific malformation of the cerebellar vermis and brainstem, resulting in the pathognomonic "molar tooth sign" on axial MRI. The condition presents hypotonia, ataxia, developmental delay, abnormal eye movements, and irregular breathing patterns.

Description:
An 8-month-old female infant born to consanguineous parents presented with global developmental delay and abnormal eye movements. The infant showed hypotonia, ataxia, oculomotor apraxia and convulsions. Physical examination revealed a broad forehead, squint and low-set ears.

Investigations:
Brain MRI revealed the pathognomonic "molar tooth sign" due to thick, horizontally oriented superior cerebellar peduncles and deep interpeduncular fossa, cerebellar vermis agenesis, ventriculomegaly and corpus callous agenesis. Full blood count, liver function tests, and renal function tests were within normal limits. Ophthalmological examination showed retinal dystrophy

Progress:
Over the next two years, the patient underwent intensive physical and occupational therapy with coverage of muscle relaxants. Motor development showed gradual improvement, achieving head control by 12 months and sitting with support by 24 months. Seizures were under control with anticonvulsants.

Discussion:
This case highlights the classical presentation of Joubert syndrome with the characteristic molar tooth sign on neuroimaging. Early diagnosis facilitated prompt intervention through a multidisciplinary approach. The case emphasizes the importance of regular monitoring for associated complications and intervening early to achieve the best possible outcomes.

A RARE CASE OF SEVERE POLYURIA DUE TO COMBINED CEREBRAL SALT WASTING SYNDROME AND DIABETES INSIPIDUS: DIAGNOSTIC CHALLENGES AND MANAGEMENT.

U G M Padmasiri, W G L Dhananjaya Gunathilaka, S Meegahawatte, D Senani Gamage, W A Lasanthi Weerasooriya, W R Sasanka A. Karunaratne, S H D Samaratunga

Introduction:

Cerebral salt wasting syndrome (CSWS) and diabetes insipidus are distinct disorders of fluid and sodium balance. CSWS causes hyponatraemia and dehydration due to excessive renal sodium loss; DI results in polyuria from ADH deficiency or resistance. Their rare co-occurrence complicates diagnosis and management.

Description:

A 1-year-old female with hydrocephalus and a VP shunt presented with shunt obstruction and infection; treated with repositioning, EVD insertion, and antibiotics. Initially, there was polyuria with low serum sodium (137mmol/L on 3% NaCl 2.2ml/hr infusion) and high urine osmolality (585mOsmol/L), consistent with CSWS followed by hypernatraemia and polyuria, suggestive of DI. Maximum polyuria was 120-130 ml/kg/hour over 50 days.

Investigations:

Initial tests indicated CSWS with low serum sodium and high urine osmolality. As polyuria persisted, serum sodium levels rose, suggesting DI. Subsequently, paired osmolality studies (high urine osmolality (308mOsmol/L), high serum osmolality (293mOsmol/L), and elevated serum sodium 153mmol/L (without 3% NaCl) demonstrated a mixed picture of CSWS and DI.

Progress:

Management included volume replacement and 3% NaCl for sodium loss, followed by fludrocortisone for CSWS. As DI became more apparent, desmopressin was introduced alongside a vasopressin infusion. Persistent polyuria prompted a trial of ibuprofen. Although electrolyte disturbances improved, ongoing polyuria was attributed to a proximal renal tubulopathy secondary to massive polyuria. Gradual fluid restriction and targeted electrolyte replacement eventually normalised urine output by day 60 of admission.

Discussion:

This case shows the diagnostic and therapeutic challenges of co-existing CSWS and DI, highlighting the need for a holistic approach to fluid and electrolyte management.

UNVEILING A NOVEL RAG1 MUTATION: A CASE OF COMBINED IMMUNODEFICIENCY AND AUTOIMMUNITY IN A CHILD

W U C J Wijerathne, S Krishnapradeep, Dr Rajiva de Silva

Introduction:
Immune dysregulation is a complex phenomenon that can manifest as both immunodeficiency and autoimmunity. Understanding the underlying mechanisms is essential for developing targeted therapies. Here, we report a case of a child with autoimmune pancytopenia and combined immunodeficiency, in whom a novel RAG 1 mutation was identified.

Description:
An 18-month-old boy, born to consanguineous parents, presented with severe hemolytic anemia, confirmed by a positive direct antiglobulin test (IgG and C3D specificity). Initially responsive to corticosteroids, he later developed immune-mediated pancytopenia, splenomegaly, and alopecia despite multiple immunomodulatory treatments. Concurrently, he was treated for recurrent neutropenic sepsis and pulmonary tuberculosis. Although IV rituximab led to clinical improvement, he required ongoing IV immunoglobulin replacement.

Investigations :
Immunological studies revealed low IgA, IgG, and IgM levels, along with B lymphopenia and reduced T lymphocyte counts. Genetic sequencing identified a homozygous missense variant in exon 2 of the RAG1 gene (c.2408A>G, (p.Asn803Ser)), reported as a variant of uncertain significance.

Progress:
Hematopoietic stem cell transplantation was considered; however, he unfortunately succumbed to severe sepsis with multi-organ dysfunction at the age of three.
Discussion: The RAG1 and RAG2 genes are essential for lymphocyte receptor formation, and mutations in these genes result in significant immune dysregulation. They are linked to primary immunodeficiency and autoimmunity, particularly severe combined immune deficiency, where nonsense mutations result in a complete lack of functional lymphocytes. This case highlights a rare and complex presentation of RAG1-associated immunodeficiency and autoimmunity. Recognizing phenotype-genotype correlations is crucial for early diagnosis and targeted management strategies.

A CASE OF APERT SYNDROME

G A D N B Wimalasena, Wimalaguna D W N M, Mohotti S L, Walpola P, Samarawickrama B Y, U M Ruwanpathirana, I Kankananarachchi

Introduction:

Apert syndrome is usually diagnosed clinically with the presence of multi-suture craniosynostosis, midface retrusion, and syndactyly. It occurs as an autosomal dominant variant in 1 in 60000 to 200000 live births. A small proportion of them can have non-progressive ventriculomegaly with non-progressive hydrocephalus.

Description: A three-year-old child with Apert syndrome presented due to an acute exacerbation of wheezing. He was delivered at term with a birth weight of 2790g and an uncomplicated perinatal history. He had multi-suture craniosynostosis, midfacial retrusion with hypertelorism, and bilateral syndactyly. His birth occipitofrontal circumference was 34cm (-1SD), and head growth lay along that centile.

Investigations (if any): Contract-enhanced computed tomography of the brain showed premature fusion of coronal suture leading to brachycephaly. Gross dilatation of bilateral lateral ventricles, 3rd and 4th ventricles were seen with communicating hydrocephalus. Bilateral maxillary bone hypoplasia was noted. He had a global development delay since infancy.

Progress: Multiple surgeries were done for finger syndactyly release, web space deepening, and thumb contracture release. At one year of age, a ventriculoperitoneal shunt was inserted for hydrocephalus. Plastic surgical intervention was performed with the frontal remodelling of the skull. Ophthalmic and hearing assessments were normal. Occupational therapy was arranged during this admission, expecting mainly to improve hand skills.

Discussion: Apert syndrome usually causes significant disability. This child with Apert syndrome was from a satisfactory socioeconomic background. Therefore, the child was managed well concerning the disabilities caused by the syndrome. Investigations and interventions should be timely for optimal development.

A RARE PRESENTATION OF NEUROFIBROMATOSIS TYPE 1

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Introduction: Neurofibromatosis type 1 (NF1) is the most common heterogeneous neurocutaneous syndrome, inherited in an autosomal dominant pattern due to NF1 gene variants. Approximately 50% of cases are familial, while the remaining 50% are sporadic. Diagnosis is based on meeting two out of seven clinical criteria, including café-au-lait spots, axillary/inguinal freckling, Lisch nodules, neurofibromas, bone lesions, or a positive family history.

Description: An 11-year-old female, the firstborn child of healthy, non-consanguineous parents, presented with fever and recurrent urinary symptoms. Urine analysis revealed coliform infection, but antibiotic treatment showed no improvement. An ultrasound of the abdomen and KUB region identified a posterior bladder mass causing bilateral vesicoureteral reflux (VUR), hydronephrosis, and calculi. The patient underwent cystoscopy, laser lithotripsy, and JJ stenting. Subsequently, an MRI spine was performed, revealing a large tumor mass. Surgical excision of the tumor without damaging the bladder plexus was done. Histopathology confirmed the mass as neurofibromas. Ophthalmological evaluation detected two Lisch nodules, and dermatological examination showed one café-au-lait spot.

Progress: Despite the absence of family history, the diagnosis of neurofibromatosis was confirmed based on two major criteria. Further evaluation with MRI brain revealed Right Optic nerve glioma and FASI lesions in the left side of the pons and bilateral dentate nuclei.

Discussion: NF1 requires a multidisciplinary management approach involving pediatricians, neurologists, surgeons, ophthalmologists, geneticists, and dermatologists. Complications such as disease progression and malignant transformation must be closely monitored. This case highlights the importance of early diagnosis and comprehensive care to address the diverse manifestations of NF1.

CONGENITAL LEFT VENTRICULAR DIVERTICULUM IN A 5-MONTH-OLD INFANT: A RARE CARDIAC ANOMALY

JAYASANKA KTR, UDARA H G H, GAJAWEERA H S, SOORIYASENA G, GAMAGE P, DESHAPRIYA S, LIYANAGE U B

Introduction: Left ventricular diverticulum is a very rare manifestation and mainly presents in children and is found in 0.4% of cases in cardiac death autopsies. Its development anomaly occurs around the 4th week of gestation and is shown as a pouch or sac branching out from the ventricle with all layers of the heart.

Description: A 5-month-old baby girl, 3rd born to non- consanguineous healthy parents without any significant antenatal, perinatal or post-natal complications, presented with a febrile illness with cough. She initially managed as bronchopneumonia. During the hospital stay, she developed respiratory distress with sudden deterioration and needed paediatric intensive care with ventilation. She had left sided moderate pleural effusion with minimal right effusion, needing intercostal tube insertion. There were no features of heart failure.

Investigations Echocardiogram showed Left ventricular diverticulum with Osteum secundum atrial Septal Defect, which was confirmed by contrast-enhanced computed tomography of the chest and cardiac catheterization

Progress: The Patient was improved with broad-spectrum antibiotics and planned for device closure of the diverticulum in future by the cardiology team. The patient is currently doing well with satisfactory weight gain.

Discussion: Left ventricular diverticulum is mostly asymptomatic and typically discovered incidentally, which was similar to this case. They can be associated with other anatomic defects that involve the thoracoabdominal midline defects. Surgical resection is the treatment of choice depending on clinical symptoms, size of the diverticulum and related complications.

Recognized complications include cardiac arrhythmias, systemic emboli, heart failure, diverticulum rupture and sudden death. Imaging techniques such as echocardiography and CT angiography are confirmatory investigations.

KABUKI SYNDROME WITH AUTISM SPECTRUM DISORDER: A RARE CASE WITH POOR THERAPY RESPONSE

Buddhima Mannapperuma, Hashan Kavinga Pathiraja, Sachitha de Silva, Dilini Vipulaguna

Introduction: Kabuki Syndrome (KS) is a rare genetic disorder primarily caused by mutations in either KMT2D or KDM6A genes, characterized by dysmorphic features, intellectual disability, and multi-system involvement. Autism Spectrum Disorder (ASD) is increasingly recognized in KS, but its presentation and response to therapy remain poorly understood.

Description: We report a 7-year-old boy with bilateral partial ptosis, submucosal cleft palate, and congenital hypothyroidism, consistent with Kabuki syndrome (KS). He exhibits characteristic dysmorphic features, including arched and broad eyebrows with sparse lateral thirds, long palpebral fissures with eversion of the lower eyelid, a depressed nasal tip, and prominent ears. Additionally, he has persistent fetal finger pads, brachydactyly, and clinodactyly, further supporting the clinical suspicion of KS. His neurodevelopmental profile includes below-average IQ and significant autism features, such as poor social interaction, repetitive behaviours, and sensory sensitivities. Genetic confirmation is pending due to resource limitations.

Progress: Despite receiving early intervention and behavioral therapy, the child shows limited progress in communication and social engagement. ASD-targeted therapies, including speech therapy and structured behavioral interventions, have yielded minimal improvement.

Discussion: This case highlights the rare but significant overlap of KS and ASD, emphasizing the need for early genetic diagnosis and tailored interventions. The poor response to therapy raises concerns about potential genetic modifiers affecting neurodevelopment. Recognizing ASD in KS is crucial for optimizing management strategies and guiding parental expectations. Further studies on therapy-resistant autism in KS are warranted in low-resource settings. Management of KS requires a multidisciplinary approach, focusing on hormone replacement for endocrine issues, speech therapy for palatal abnormalities, and behavioural interventions for neurodevelopmental challenges. Routine screening for cardiac, renal, vision, and hearing abnormalities is essential, along with orthopaedic support for musculoskeletal issues. Genetic counselling remains a key component, providing families with guidance on recurrence risks and long-term care strategies.

ACADEMIC AND COGNITIVE CHARACTERISTICS OF NOONAN SYNDROME

Dilini Vipulaguna, T Lokubalasuriya, L Madushani, C Wijayawardena, R Jayathilake, H Madushani

Introduction:
Noonan syndrome (NS) is a multisystemic genetic syndrome encompassing short stature, congenital heart disease, distinctive facial characteristics, and varying degrees of neurocognitive manifestations.

Description:
This case series describes two cases of Noonan syndrome. Case 1 (V) is 13 years old and has features of a specific learning disorder and inattention. He was born at term with normal birth weight and has dysplastic pulmonary vasculature. Case 2 (A) is a 12-year-old boy with a learning disability and inattention. He was a term born with a low birth weight of 2400g. He had patent ductus arteriosus, which was surgically repaired.

This case series focuses on their educational and cognitive capabilities. Both boys had developmental delays in their early years. Both are currently in mainstream education with academic support. Their speech and language skills were below age-appropriate levels, and both were at the narrative level.

Case 1 had average nonverbal IQ (Raven standard progressive matrices) while case 2 had very poor nonverbal IQ (TONI III). In language skills, both boys showed good reading fluency. When it came to comprehension, both showed better auditory comprehension compared to reading comprehension. Mathematical skills were below the age-appropriate level.

Both boys showed moderate inattention in SNAP IV screening without clinically significant levels of hyperactivity. However, they had independent adaptive skills.

Progress:
These children receive speech, behaviour and education therapy support to be in mainstream education.

Discussion:
These cases show the importance of early interventions for inattention and literacy for children with Noonan syndrome.

PARRY ROMBERG SYNDROME: ANOTHER CAUSE FOR HEMIFACIAL ATROPHY

Naotuuna DSG, Thushani J, Sirisena D, Chandrakumara A

Introduction:
Parry Romberg Syndrome (PRS), also known as progressive hemifacial atrophy, is a rare condition of unknown aetiology characterized by progressive atrophy of one side of the face, commonly the left side. Onset is usually in the first two decades, with gradual progression up to twenty years. The process stabilizes with permanent deformities. Neurological and ophthalmological involvements are variable. Neuroimaging aids in the diagnosis.

Description:
A 36 years old lady, a known patient with vitiligo, with a history of progressive left-sided facial atrophy since the age of fifteen, underwent muscle flap surgery at the age of sixteen given reconstruction. This time presented with progressive right-sided ptosis over six months.

On examination, apart from left hemifacial atrophy with loss of left eyebrow and ipsilateral atrophied tongue, she had right temporalis wasting with near complete ptosis and restricted superior rectus movements. The rest of the systemic examination was normal. She did not have the features of scleroderma.

Her inflammatory markers are within the normal range. Serum electrolytes, including calcium, are within normal range with an ANA titre of 1:80. The MRI brain showed multiple lacunar infracts, and the MRI face showed atrophy of the left-sided facial muscles and soft tissues. She was started on steroids and later on Mycophenolate Mofitil.

Discussion:
The diagnosis of PRS is mainly clinical. Investigations aid primarily in differentiating PRS from similar conditions. Management needs a multidisciplinary approach along with the symptomatic treatment for neurological deficits.

A 5 YEARS OLD CHILD WITH HYPER-IGD SYNDROME

L H Chanika Thilini Lokuhewage, Shihaan Larif, Sajeemala Jayasekara, R.U. Sulakshi, Hemali De Silva

Introduction:

Hyper IgD Syndrome is a rare autoinflammatory periodic fever syndrome with autosomal recessive inheritance.It is caused by mutation in the mevalonate kinase gene.Incidence is 1:50,000 to
1: 5,000.Reduced MVK enzyme activity results in dysregulated innate immunity and exaggerated inflammatory response.Usual presentation include recurrent episodes of fever, lymphadenopathy, abdominal pain, arthralgia/arthritis and skin manifestations.The condition is triggered by infections, stress or vaccinations.Diagnosis relies on clinical presentation, elevated serum IgD , increased urinary mevalonic acid during attacks and genetic testing. Treatment include NSAIDs or corticosteroids.

Description:

Our patient is a 5 years old girl of non-consanguineous parents, initially presented at 18 days of life with fever & skin sepsis. At 2, 4 & 6 months of age she had meningitis, sepsis & viral fever started following vaccinations. At 14 months, she developed fever with abdominal pain, hepatosplenomegaly and lymphadenopathy. She was treated with NSAIDs. Subsquently similar episodes were managed with NSAIDs. At the age of 5, she presented with fever and ileocolic intussusception which is a known presentation. The abdominal pain which persisted after saline reduction, was responded to oral prednisolone.

Investigations

Immunoglobulin levels, complement levels and antiretroviral screening were normal.Neutrophil leucocytosis, elevated CRP, ESR and urine mevalonic acid levels were noted during the episodes. Genetic testing was not performed due to financial constraints.

Progress: The frequency of episodes reduced with age.

Discussion:

Considering HyperIgD syndrome in children with recurrent fever episodes will reduce the unnecessary investigations and antibiotic treatments.In resource-limited settings, urine mevalonic acid positivity aids the diagnosis .

METHYLMALONIC ACIDEMIA PRESENTING AS SIGNIFICANT HYPERAMMONAEMIA, MIMICKING A UREA CYCLE DEFECT: A CASE REPORT

P. S. Madawala, Gayan Kodithuwakku, Anura Jayawardena, Imalke Kankananarachchi

Introduction:
Methylmalonic acidaemia (MMA) is a rare inborn error of organic acid metabolism which is inherited as autosomal recessive manner. It is characterised by impaired conversion of methyl malonyl CoA into succinyl CoA, resulting in accumulation of methylmalonic acid and its precursors in body fluids due to deficiency in methyl malonyl CoA mutase or its coenzyme; adenosyl cobalamin. The severity of clinical presentation can vary from very sick new born infants to apparently asymptomatic adults.

Description: A two-month-old baby girl, third child of healthy non- consanguineous parents with family history of unexplained recurrent infant deaths on maternal side presented with three episodes of unexplained metabolic crises where she developed progressive sleepiness, poor sucking and less activity. Birth history was uneventful. Her growth parameters were within normal limits. She had no dysmorphism, scalp or skin rashes. There was 2.5 cm hepatomegaly with no splenomegaly. Pan systolic murmur was heard at L/lower sternal edge with no cardiomegaly and the rest of the examination was unremarkable. Crisis episodes were managed medically with oral sodium benzoate, L – arginine, carnitine, bicarbonate and intra muscular B12 along with restricted dietary protein. At 5 months of age, baby again presented with a crisis where she was succumbed to death due to refractory metabolic acidosis despite all supportive care. By this presentation, baby was found to have global developmental delay and failure to thrive.

Investigations (if any): During each episode, investigations revealed significant hyperammonaemia (320ug/dl, 567ug/dl), high anion gap metabolic acidosis, normal lactate, normoglycemia, mild ketonuria and low normal blood urea. 2D Echo revealed small mid muscular VSD. Plasma Acylcarnitine profile revealed elevated C3 propionyl carnitine, suggestive of propionic acidaemia or MMA or cobalamin deficiency.

Progress: MMA was genetically diagnosed by identifying a missense mutation in the gene MMUT by whole exome sequencing. Genetic counselling was done and two healthy siblings were screened with basic metabolic screen which revealed no abnormalities.

Discussion: This case emphasizes that significant hyperammonaemia in the face of high anion gap metabolic acidosis should raise suspicion of an organic acidaemia. Although the genetic diagnosis is important for genetic counselling and prognostication, management will be primarily supportive for any baby with organic acidaemia in the Sri Lankan context.

STXBP1C1-RELATED EPILEPTIC ENCEPHALOPATHY

Deepthi de Silva, Sanjaya Fernando, Harendra de Silva

Introduction: STXBP1-related disorders are rare neurodevelopmental conditions characterized by epilepsy, developmental delay, and movement abnormalities. The STXBP1 gene encodes a protein essential for synaptic vesicle fusion, and its mutations lead to early infantile epileptic encephalopathy (EIEE) with regression and likelihood of high degree of dependence in future life.

Description: A 6-year-old male, first evaluated at 9 months due to global developmental delay and presented with epileptic encephalopathy. Regression in motor and cognitive abilities was noted. Clinical examination revealed craniofacial dysmorphism (depressed nasal bridge, anteverted nostrils, deep-set upslanting eyes) and dermatological findings (Mongolian spot, Cafe au lait patches.

Investigations (if any): Whole-exome sequencing identified a de novo heterozygous pathogenic variant in STXBP1 (c.416C>T; p.Pro139Leu), confirming STXBP1-related epileptic encephalopathy with the parents being negative for mutation.

Progress: The child is undergoing physiotherapy, and a multidisciplinary approach including speech and occupational therapy is recommended. Seizure management is ongoing. Prognosis depends on seizure control and neurological impairment. Other affected cases have also been reported with movement disorders and this will need to be assessed in the future..

Discussion: Mutations in STXBP1 cause severe neurodevelopmental disorders. Early genetic diagnosis was helpful in excluding a metabolic disorder, causing his developmental regression as some of these may be missed by screening investigations. It has also enabled more accurate genetic counselling of the parents regarding the recurrence risks (of around 1% gonadal mosaic risk) as well as explaining the severity of the disorder. The child also needs continuing specialist review for evolving features associated with this gene mutation, namely a movement disorder.

A CASE OF SEVERE FAILURE TO THRIVE WITH SUSPECTED CONGENITAL LIPODYSTROPHY

Umani Senavirathne, Dhara Hapuarachchi, Gimhani Geethaswari, Sanduni Wijesinghe, Ruwanthi Perera

Introduction:
Lipodystrophies (congenital/acquired) are rare conditions associated with the loss of adipose tissue with redistribution of body fat and varying degrees of hyperlipidaemia, insulin resistance and steatosis. The overall prevalence is less than 1 case per million.

Description:
A fifteen-month-old boy presented with severe Failure to thrive (FTT). He was born to healthy non-consanguineous parents at term with a birth weight of 2.93kg (mean) and was exclusively breastfed till 6 months. FTT noted from 3 months. He did not have any recurrent infections, food aversions, or chronic diarrhoea. Calorie intake was satisfactory. Currently, his weight is 5.665kg (<-3SD), length and weight for length is <-3SD, and OFC is between -2SD and -3SD. Elder sibling died on day 2 with Edwards syndrome. Examination revealed low set, prominent ears, absent dentition and tapering of fingers. The most remarkable feature was a lack of subcutaneous fat, prominently over the limbs and abdomen, with thin, dry skin with prominent veins and significant acanthosis nigricans with relative sparing of facial and gluteal fat. Increased tone, more prominently in lower limbs noted.

Investigations (if any):
Lipid profile showed elevated total cholesterol(220mg/dL) and LDL(143mg/dL) with rising triglyceride levels from 52 mg/dL to 96 mg/dL over 3 months. FBS and OGTT did not reveal evidence of insulin resistance. Ultrasound scan did not reveal a fatty liver.

Progress:
He was referred to the Paediatric Genetic Unit at LRH for genetic confirmation.

Discussion:
Congenital lipodystrophy syndromes can present with severe FTT and loss of subcutaneous fat. The classical biochemical picture may develop with time.

A CASE OF MIXED-TYPE AUTOIMMUNE HAEMOLYTIC ANAEMIA (AIHA): A RARITY IN PAEDIATRICS

Sanduni Wijesinghe, Umani Senavirathne, Dhara Hapuarachchi, Gimhanie Geethaswari, Ruwanthi Perera

Introduction:
Mixed-type AIHA presents a diagnostic challenge due to coexistence of warm and cold antibodies targeting RBCs, especially in the paediatric population. AIHA has an incidence of 0.2 per 100,000 in 11–20-year age group.

Description:
12-year-old previously healthy boy presented with fever, haematuria, jaundice, and concurrent pallor. He is the second born child to healthy non-consanguineous parents with no family history of haemolytic anaemia and denied preceding illness. He was pale and jaundiced. No organomegaly.

Investigations (if any):
Hb dropped from 7.8 g/dL to 5.4 g/dL. Reticulocyte count of 8.5%, LDH of 1071 units/L (normal <400 units/L), increased indirect hyperbilirubinemia and AST indicated an ongoing haemolysis.
Negative urine haemoglobin spectrophotometry excluded intravascular haemolysis. His initial blood picture revealed rouleaux formation and a low red cell count with a majority of spherocytes. Coagulation screen was negative. Direct agglutination test (DAT) was positive for both complement (C3d) and IgG. Donath-Landsteiner test was negative on two occasions. ANA was negative. Virology was negative for EBV and CMV. Mycoplasma IgM titre was positive at 1:80.

Progress:
He developed a reaction to prewarmed blood and subsequently had 4 leucocyte depleted red cell concentrates without warming and treated with IV Methylprednisolone. A successful recovery was made.

Discussion:
Diagnostic hallmark of AIHA is the DAT. In this case, DAT was positive for both C3d and IgG antibodies, confirming the coexistence of warm and cold-reactive antibodies. This dual positivity is characteristic of mixed-type AIHA, distinguishing it from other AIHA subtypes. Mycoplasma infection is known to trigger secondary AIHA by inducing an autoimmune response.

A RARE CASE OF DIRECT AGGLUTINATION TEST (DAT) NEGATIVE CONCURRENT EPSTEIN-BARR VIRUS & CYTOMEGALOVIRUS INDUCED INTRAVASCULAR HAEMOLYSIS IN A CHILD

Gimhanie Geethaswari, Sanduni Wijesinghe, Dhara Hapuarachchi, Umani Senavirathne, Ruwanthi Perera

Introduction: Childhood haemolytic anaemias are mainly extravascular, yet inherited or acquired intravascular haemolysis do occur due to numerous aetiologies.

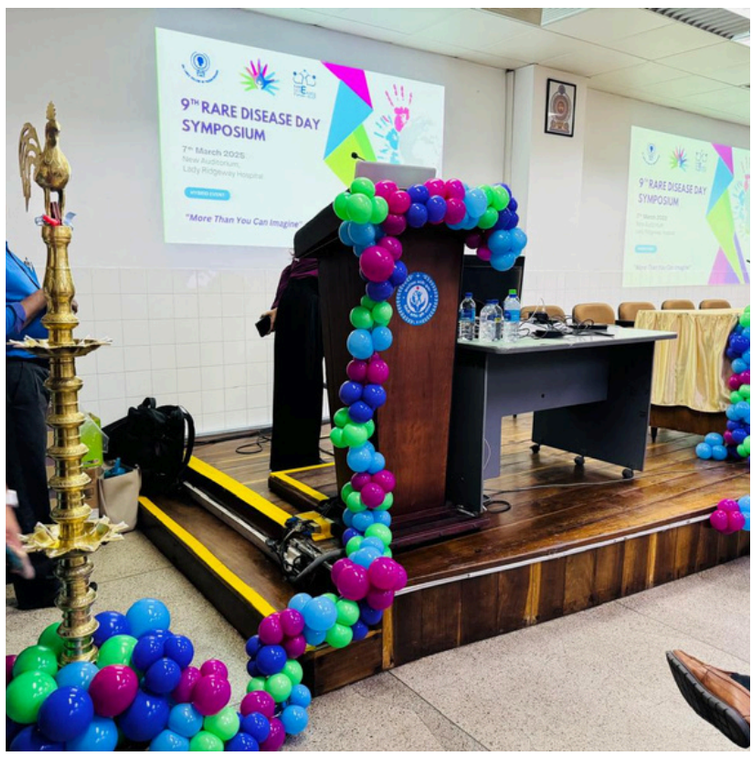
Description: A previously healthy 3-year-old boy presented with painless, evenly stained, dark coloured urine for 3 days with normal output. There was a 3-day history of fever and cough, 14 days prior to presentation. He is the first born to healthy non consanguineous parents. No history of prolonged neonatal jaundice. On examination, he had mild icterus and pallor. The systems examination was normal.

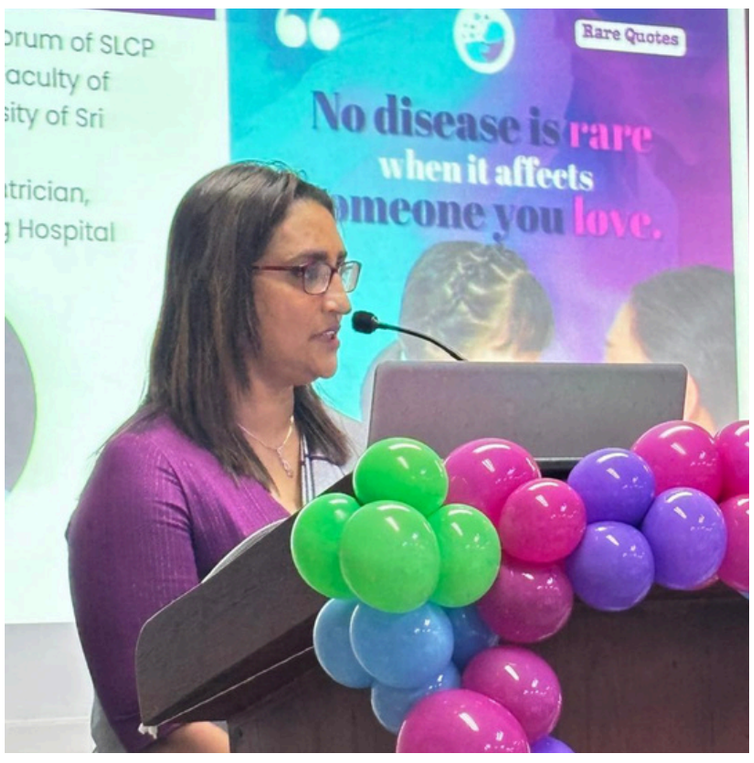
Investigations (if any): FBC showed anemia, leukocytosis with lymphocytosis (20.9* 109 /L) and marginal thrombocytopenia with evidence of mild haemolysis and reactive lymphocytes with bluish cytoplasm on blood film. Ongoing hemolysis was evidenced by elevated LDH of 740 IU/L and a reticulocyte count of 4.8%. There was no coagulopathy. DAT was negative on days 4 and 6. Liver transaminases were marginally elevated with indirect hyperbilirubinemia. Urine analysis revealed free haemoglobin and increased urobilinogen.
Viral serology revealed evidence of recent infections of CMV and EBV. Mycoplasma serology was negative. Parvovirus IgM and IgG antibodies were negative.
Paroxysmal cold haemoglobinuria was ruled out by a negative Donath Landsteiner test. The glucose 6 phosphate dehydrogenase screen during the neonatal period was normal.

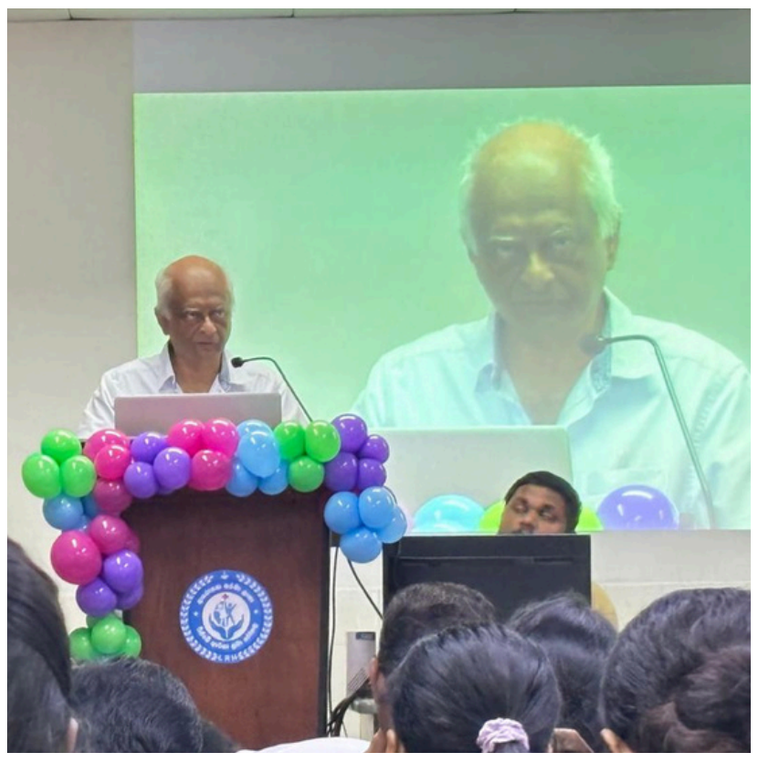
Progress: The child made a complete recovery with the normalisation of haematological and biochemical markers and disappearance of dark urine in 2 weeks.

Discussion: While EBV is a common cause for AIHA, CMV leading to hemolytic anemia is a rare phenomenon.
The mechanism of haemolysis remains unclear in CMV, and the haemolytic anaemia caused by EBV is usually DAT positive.

PHOTO GALLERY







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