1st MySPGHAN

Biennial Scientific Congress

Organised by:

MySPGHAN
Persatuan Pediatrik Gastroenterologi, Hepatologi, dan Nutrisi Malaysia
Malaysian Society of Paediatric Gastroenterology, Hepatology, and Nutrition

27-29 JUNE 2024

ROYALE CHULAN KUALA LUMPUR, MALAYSIA

Digestive Health-Into a New Dimension

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MESSAGE FROM ORGANIZING CHAIRPERSON

Ong Sik Yong
Organizing Chairperson,
MySPGHAN Congress 2024

Dear colleagues and friends,

On behalf of Malaysian Society of Paediatric Gastroenterology, Hepatology and Nutrition (MySPGHAN), we are delighted to welcome you to the 1st MySPGHAN Biennial Scientific Meeting on 28th to 29th June 2024 in Kuala Lumpur.

This inaugural biennial scientific meeting with the theme 'Digestive health-into a new dimension' aimed to set a platform for fellow colleagues from local and abroad to share updated knowledge and practical management related to the field.

The scientific committee has designed a comprehensive programme of sessions that include plenary lectures, meet the expert sessions and symposiums that would meet the need of general paediatrician, paediatric gastroenterologists and hepatologists. This meeting also welcomes submissions of research papers and authors stand a chance to win the prestigious Young Investigator Awards.

We would like to express our sincere gratitude for the contribution and dedication of the Organizing Committee and the Scientific Committee and all distinguished speakers. We are also grateful to industry partners for collaborating with us on this event.

We look forward to seeing you in Kuala Lumpur.

MESSAGE FROM SCIENTIFIC CHAIRPERSON

Chew Kee Seang
Scientific Chairperson,
MySPGHAN Congress 2024

Dear colleagues and friends,

I am delighted to welcome you all to the very first MySPGHAN Biennial Scientific Meeting, taking place from June 28th to 29th, 2024, in the vibrant city of Kuala Lumpur. As the Scientific Chairperson, I am excited to share that our focus for this meeting is on “Digestive Health - Into a New Dimension.” This theme highlights the exploration of new ideas and approaches in the field of pediatric gastroenterology, hepatology, and nutrition.

Over the course of these two days, we have put together a program that is designed to help us all learn, collaborate, and share our findings. We will dive into discussions about the latest advancements in digestive health, bringing together experts from around the world to share their insights. Our goal is not just to learn from one another, but also to work together to push the boundaries of what we know and to find new ways to improve the digestive health of children.

This meeting is a unique opportunity for all of us to come together, exchange ideas, and build connections. Your presence and contributions are what will make this event truly special, and I am excited to see the ways in which our collective efforts will lead us into this new dimension of understanding.

Thank you for being a part of the 1st MySPGHAN Biennial Scientific Meeting. Let’s embark on this journey of discovery and learning together. See you in Kuala Lumpur!

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APPSPGHAN NUTRITION MASTERCLASS

27 JUNE 2024, THURSDAY

Time	Duration	Topic	Speaker	Moderator
0800-0820	20 min	**Registration**		
0820-0825	5 min	**Opening Remarks** (President of MySPGHAN)	Prof Lee Way Seah	
0825-0845	20 min	Rationale to Determine the Energy Requirement for Children (Greeting from President of APPSPGHAN for Importance of Nutrition for Child Health)	Prof Kyung Mo KIM	
0845-0915	30 min	Childhood stunting – Role of pediatricians in diagnosis and management	Damayanti Rusli SYARIF	Way Seah LEE
0915-0945	30 min	Pediatric obesity – Current perspectives in diagnosis and management	Sirinuch CHOMTHO	
0945-1015	30 min	Maternal diets and supplementation in pregnancy – Potential impact on birth weight and preterm birth	Iris Mei Ching CHAN	
1015-1030	15 min	**Panel Q&A**		
1030-1045	15 min	**Coffee Break**		
1045-1115	30 min	Dietary patterns and non-communicable diseases in later life - Early nutrition shaping future health	Jossie ROGACION	Kee Seang CHEW
1115-1145	30 min	Vitamin D deficiency, supplementation, and evidence-based applications	Masanobu KAWAI	
1145-1215	30 min	Conventional functional foods and nutraceuticals for health benefit in Asian children	Shiuh-Bin FANG	
1215-1230	15 min	**Panel Q&A**		
1230-1330	60 min	**Lunch Symposium** Human Milk Oligosaccharides (HMOs): A Comprehensive Review of Function, Nutritional Impact, and Clinical Implications	Prof Katsuhiro ARAI	Shiuh-Bin FANG
1330-1400	30 min	Practical approach to children with picky eating	Luu Thi My THUC	Chee Liang CHOONG
1400-1430	30 min	Innovative use of probiotics in the fight against malnutrition and micronutrient deficiencies	Sarath GOPALAN	
1430-1500	30 min	Non-celiac gluten sensitivity and gluten related disorders – Facts and myths	Marion AW	
1500-1515	15 min	**Panel Q&A**		
1515-1530	15 min	**Coffee Break**		
1530-1600	30 min	Intestinal failure and rehabilitation – Current and emerging treatments	Jason YAP	Ruey Terng NG
1600-1630	30 min	Optimizing management for hospital and home parenteral nutrition for pediatric intestinal failure	Jin Soo MOON	
1630-1640	10 min	**Panel Q&A**		
1640-1650	10 min	**Closing Remarks** (Chair of the Nutrition Subcommittee of APPSGHAN) (Chair of the Scientific Committee of APPSGHAN)	Prof Shiuh-Bin FANG Prof Katsuhiro ARAI	

PROGRAMME - 28 JUNE 2024, FRIDAY

TIME	BALLROOM 1	BALLROOM 2
0730-0830	**Registration**	
0830-0900	**Keynote Lecture: Nutrition** **Chairperson: Way Seah LEE** Universiti Tunku Abdul Rahman, Malaysia **Nutrition In The First 1000 Days: Impact on Long-term Health Outcome** **Sirinuch CHOMTHO** Chulalongkorn University, Thailand	
0900-0930	**Plenary Lecture: Lessons Learnt from GUSTO Study** **Chairperson: Christopher Chiong Meng BOEY** International Medical University, Malaysia **Lessons Learnt from GUSTO Study** **Yung Seng LEE** National University of Singapore, Singapore	
0930-1000	**Opening Ceremony and Launch of Cow's Milk Protein Allergy CPG 2nd Edition**	
1000-1030	**Tea and Poster Viewing**	
1030-1200	**Symposium 1:** **Growth and Nutrition** **Chairperson: Juan Loong KOK** Hospital Umum Sarawak, Sarawak, Malaysia	**Symposium 2:** **Gut Health In Infants and Young Children: The New Kids On The Block?** **Chairperson: Norashikin RANAI** Universiti Teknologi MARA Malaysia, Malaysia
1030-1100	**Barriers To Catch Up Growth** **Marion Aw** National University of Singapore, Singapore	**Gut Health In Infants and Young Children: New Kid On The Block?** **Alvin Kim Mun KHOH** Gleneagles Hospital Kota Kinabalu, Malaysia
1100-1130	**Iron Deficiency and Cognitive Function** **Choy Chen KAM** Hospital Tunku Azizah, Kuala Lumpur, Malaysia	**H. Pylori infection: Overdiagnosed?** **Sik Yong ONG** Sunway Medical Centre, Malaysia
1130-1200	**Specialised Formula, Enteral and Supplementary Feeds** **Sze Yee CHONG** Hospital Raja Permaisuri Bainun, Malaysia	**Common Drug Used In Paediatric GI Practice** **Hee Wei FOO** Hospital Selayang, Malaysia
1200-1300	**Lunch by Industry** **Nutrition in Nuturing Gut Health for Enhanced Immunity & Brain** **Prof Flavia Indrio** University of Salento Lecce, Italy **Prof Jan Knol** Wageningen University, The Netherlands	**Lunch Symposium 2: Delfi Marketing** **Role of Rice Hydrolysate for The Management of CMPA** **Dr Alvin Khoh** Gleneagles Hospital KK
1300-1430	**Lunch Poster Viewing and Exhibition**	
1430-1600	**Symposium 3:** **Nutrition In Hospitalised Children** **Chairperson: Alvin Kim Mun KHOH** Gleneagles Hospital Kota Kinabalu, Malaysia	**Symposium 4:** **Childhood Liver Disease** **Chairperson: Choy Chen KAM** Hospital Tunku Azizah, Kuala Lumpur, Malaysia
1430-1500	**Malnutrition In Hospitalised Children** **Sirinuch CHOMTHO** Chulalongkorn University, Thailand	**Advances and challenges in the medical management of PALF** **Soo Lin CHUAH** University of Malaya, Malaysia
1500-1530	**Born Too Early and Born Too Small: Different Strategies For Different Growth Trajectories** **Azanna AHMAD KAMAR** University of Malaya, Malaysia	**Portal Hypertension: Approach and Management** **S Venkatesh KARTHIK** National University Hospital (NUH), Singapore

TIME	BALLROOM 1	BALLROOM 2
1530-1600	**Nutrition In The Critically Ill Child** **Ani Suraya ABDUL GHANI** Hospital Serdang, Malaysia	**Pediatrics Liver Transplant Program In Malaysia - One-Hit Wonders vs. Hit Makers - Sustaining The Program's Success In My Country** **Peng Soon KOH** University of Malaya, Malaysia
1600-1630	**Plenary Lecture: Gut Microbiome-Immune System-Brain Interactions in Children** **Chairperson: Sze Yee CHONG** Hospital Raja Permaisuri Bainun, Malaysia **Immune System-Brain Interactions in Children** **Marion Aw** National University of Singapore, Singapore	
1630-1700	**Tea and Poster Viewing**	
1700	**MySPGHAN AGM** (Hall 3)	
1830 - 2130	**Faculty Dinner** (by invitation only)	

PROGRAMME - 29 JUNE 2024, SATURDAY

TIME	BALLROOM 1	BALLROOM 2
0730-0830	**Meet The Expert 1:** **Investigating The Liver** **Chairperson: Pooi Yan LEONG** Hospital Tunku Azizah, Kuala Lumpur, Malaysia	**Meet The Expert 2:** **Office Paediatrics: Common GI Problems** **Chairperson: Siti Nur Haidar HAZLAN** Universiti Sains Malaysia, Malaysia
0730-0750	**Basic Biochemistry** **Chee Liang CHOONG** Hospital Pulau Pinang, Malaysia	**GERD in infants** **Shu Ching EE** Hospital Raja Permaisuri Bainun, Malaysia
0750-0810	**Radiology** **Norashikin RANAI** Universiti Teknologi MARA Malaysia, Malaysia	**Management of Constipation** **Hee Wei FOO** Hospital Selayang, Malaysia
0810-0830	**Case Discussion** **Siew Sing CHUA** Hospital Raja Permaisuri Bainun, Malaysia	**Recurrent abdominal pain** **Christopher Chiong Meng BOEY** International Medical University, Malaysia
0830-0900	**Plenary Lecture: Prevention of Food Allergies** **Chairperson: Hee Wei FOO** Hospital Selayang, Malaysia **Prevention of Food Allergies** **Bee Wah LEE** National University of Singapore, Singapore	
0900-1100	**Symposium 5:** **PIBD** **Chairperson: Chee Liang CHOONG** Hospital Pulau Pinang, Malaysia	**Symposium 6:** **Childhood Obesity and Liver** Chairperson: Pui Ling THONG Universiti Putra Malaysia, Malaysia
0900-0930	**IBD Mimics** **James Guoxian HUANG** National University of Singapore, Singapore	**Microbiome, Obesity and The Liver** **Voranush CHONGSRISAWAT** Chulalongkorn University, Thailand
0930-1000	**Management of PIBD In Resource-Limited Settings** **Anshu SRIVASTAVA** Sanjay Gandhi Post Graduate Institute of Medical Sciences, India	**Liver Aspects In MAFLD - The Fatal Triple End Organ Injury** **Ruey Terng NG** University of Malaya, Malaysia
1000-1010	**Abstract (Oral Presentation)**	**Abstract (Oral Presentation)**
1010-1020	**Abstract (Oral Presentation)**	**Abstract (Oral Presentation)**
1020-1030	**Abstract (Oral Presentation)**	**Abstract (Oral Presentation)**

TIME	BALLROOM 1	BALLROOM 2
1030-1100	**Positioning Dietary interventions in PIBD** **Kee Seang CHEW** University of Malaya, Malaysia	**Role of dietary intervention in MAFLD** **Voranush CHONGSRISAWAT** Chulalongkorn University, Thailand
1100-1130	**Industry Sponsored Tea Symposium 1:** **Hoe Pharma Taisho** **Chairperson: Dr Norashikin Ranai** International Medical University, Malaysia **From Tea to Treatment: The Evidence-Based Journey of Saccharomyces boulardii** **Dr. Chew Kee Seang**	**Industry Sponsored Tea Symposium 2:** **Biogaia** **Chairperson: Dr Ong Sik Yong** **Latest Clinical Findings on L. reuteri DSM 17938 as a Preventive Approach for Antibiotic-Associated Diarrhea in Children** **Prof. Dr. Sirin Guven** Sancaktepe Training & Research Hospital, Istanbul, Turkey
1130-1300	**Symposium 7:** **Role of Endoscopy In Children** **Chairperson: Nazrul Neezam NORDIN** Sunway Medical Centre, Malaysia	**Symposium 8:** **Food Allergies** **Chairperson: Shu Ching EE** Hospital Raja Permaisuri Bainun, Malaysia
1130-1200	**Role of Diagnostic Endoscopy in Children** **Pei Fan CHAI** Pantai Hospital Kuala Lumpur, Malaysia	**Management of CMPA /in Malaysia: The New Guideline** **Adli ALI** University Kebangsaan Malaysia, Malaysia
1200-1230	**Endoscopic Intervention: Esophageal, PEG, Polypectomy, etc** **Andy DHARMA** Universitas Airlangga, Surabaya, Indonesia	**Immunotherapy In Food Allergies: Are We There Yet?** **Bee Wah LEE** National University of Singapore, Singapore
1230-1300	**Management of Foreign Body Inhalation: ENT Perspective** **Jeyanthi KULASEGARAH** University of Malaya, Malaysia	**Eosinophilic GI Disease In Children and The Role of Food Allergens** **Fang Kuan CHIOU** KK Women's and Children's Hospital, Singapore
1300-1400	**Lunch Symposium by Industry**	
1400-1530	**Symposium 9:** **Pre-, Pro, and Synbiotics In Children** **Chairperson: Pei Fan CHAI** Pantai Hospital Kuala Lumpur, Malaysia	**Symposium 10:** **The Role of The Surgeon In Paediatric GI Conditions** **Chairperson: Ruey Terng NG** University of Malaya, Malaysia
1400-1430	**Gut Microbiome and Leaky Gut** **James Guoxian HUANG** National University of Singapore, Singapore	**Perianal Diseases** **Wei Sheng TAN** University of Malaya, Malaysia
1430-1500	**Pre-, Pro- and Synbiotics For The Management of Pediatric Gastrointestinal Disorders** **Andy DHARMA** Universitas Airlangga, Surabaya, Indonesia	**Refractory Constipation** **Shireen Anne NAH** University of Malaya, Malaysia
1500-1530	**Gut Dysbiosis In Autism: What's The Evidence?** **Subhashini JAYANATH** University of Malaya, Malaysia	**Inflammatory Bowel Disease** **Yew Wei TAN** University of Malaya, Malaysia
1530-1600	**Keynote Lecture: Gastroenterology** **Chairperson: Sik Yong ONG** Sunway Medical Centre, Malaysia **Epidemiology and Clinical Features of PIBD: the Malaysian Story** **Way Seah LEE** Universiti Tunku Abdul Rahman, Malaysia	
1600-1630	**Tea and Poster Viewing**	
1630-1700	**Closing Ceremony + Prize Giving**	

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ABSTRACTS

Ref. ID: A-0004 (Poster Presentation)	Nutrition

STARTING A NATIONAL INTESTINAL TRANSPLANTATION SERVICE IN SINGAPORE: OUTCOME OF THE FIRST 3 PAEDIATRIC RECIPIENTS

Fang Kuan CHIOU[1,4], Ye Xin KOH[2,4], Yee LOW[3,4], Lay Queen NG[1,4], Yong CHEN[3,4], Brian GOH[2,4], Ek Khoon TAN[2,4], Darren CHUA[2,4], Debra SUDAN[5], Prema Raj JEYARAJ[2,4]

[1]Gastroenterology, Hepatology & Nutrition, Paediatric Medicine, KK Women's and Children's Hospital, Singapore
[2]Hepato-pancreato-biliary and Transplant Surgery, Singapore General Hospital, Singapore
[3]Paediatric Surgery, KK Women's and Children's Hospital, Singapore
[4]Intestinal Transplant Service, Singhealth Duke-NUS Transplant Centre, Singapore
[5]Division of Abdominal Transplant Surgery, Duke University Medical Centre, USA

Objective
Intestinal transplantation (ITx) is a life-saving treatment for patients with end-stage complications from intestinal failure (IF). In 2018, there were at least 49 adult and paediatric patients in Singapore on long-term home parenteral nutrition (PN). We aim to describe the preparatory phase, management and outcome of the first cases of ITx in Singapore.

Methods
With the rising burden of IF, the need for an ITx service was recognised since 2015. Gastroenterologists and surgeons underwent training at major international ITx centres. Further training was conducted locally with animal experiments. Close collaboration was established with Duke University Medical Centre, who provided support in the preparatory phase and post-transplant management through virtual rounds and masterclasses. An advisory panel of ITx experts from US (Duke), UK (Birmingham, Cambridge, King's) and Japan (Tokyo) provided recommendations and consensus. Approval was sought from the Ministry of Health for each patient who required ITx. Transplant surgeries were attended in-person by our partner transplant surgeon from Duke (Debra Sudan).

Results
Since 2022, 3 children (age: 6-10 years) with chronic intestinal pseudo-obstruction (n=2) and short bowel syndrome (n=1) underwent living-donor, isolated ITx. Immunosuppression consisted of thymoglobulin (rATG), methylprednisolone and tacrolimus. All 3 patients were successfully weaned off PN within 19-36 days and discharged from hospital 38-55 days after surgery. Infective complications included chronic Epstein-Barr viraemia (n=2), cytomegalovirus enteritis (n=1), and 1 patient who had an additional fascia graft and developed superficial abdominal wall abscess that required surgical drainage. All 3 patients are alive with functioning intestinal grafts after 4–23 months post-transplant. None had developed acute cellular rejection. Donor recovery for all cases was uncomplicated.

Conclusion
Timely transplant before onset of significant liver disease, dedicated support from established ITx centres, and possible surgical/immunologic advantage in living-donor ITx have been key factors contributing to the early success of our program.

ABSTRACTS

Ref. ID: A-0005 (Poster Presentation)	Hepatology

IDENTIFYING BIOCHEMICAL AND RADIOLOGICAL FEATURES TO DIFFERENTIATE CYSTIC BILIARY ATRESIA FROM CHOLEDOCHAL CYST

Lynette GOH[1], Li-Wei CHIANG[2], Christopher HO[1], Lay Queen NG[1], Charanya RAJAN[1], Divya PANDEY[1], Veena LOGARAJAH[1], Kong Boo PHUA[1], Fang Kuan CHIOU[1]
[1]Department of Gastroenterology, Hepatology and Nutrition, KK Women's and Children's Hospital, Singapore
[2] Children's Surgery Centre, KK Women's and Children's Hospital, Singapore

Objectives
Biliary atresia (BA) is a progressive fibro-obliterative biliary disease leading ultimately to biliary cirrhosis whereas choledochal cyst (CC) is the result of abnormal pancreatobiliary junction and cystic dilatation of part of whole of the biliary tree. Cystic BA accounts for 5%–10% of BA cases which can be challenging to distinguish from CC at early infancy because of similar presenting features. Typical ultrasound features of biliary atresia may also be absent in cystic BA. Timing of intervention and prognosis are different between cystic BA and CC, hence prompt and accurate diagnosis is important. This study aims to compare biochemical and radiological features between cystic BA and CC in infants <60 days old to identify parameters that can differentiate between the 2 diagnoses at the pre-operative stage.

Methods
Retrospective data was collected from infants <60 days diagnosed intraoperatively with CC or cystic BA from 2009 - 2023 at tertiary paediatric liver unit in Singapore.

Results
Five patients with cystic BA (60% male) and 6 patients with choledochal cyst (67% male) were included. Table 1 compares the biochemical and radiological features of the two groups. Receiver operating curve (ROC) analysis showed that liver cyst size of less than 2.1 cm was suggestive of cystic BA with sensitivity of 100% and specificity of 100%. There was a trend towards high bilirubin and Alanine transaminase in cystic BA but the difference was not statistically significant.

Conclusions
Cystic diameter cutoff of 2.1 cm may be a potential marker to differentiate between cystic BA and CC in young infants. Liver biopsy and/or intraoperative cholangiogram should be considered for patients with cystic diameter of less than 2.1 cm to exclude BA.

ABSTRACTS

Ref. ID: A-0006 (Poster Presentation)	Interdisciplinary

THE IMPACT OF COVID-19 PANDEMIC ON OBESITY RATES IN CHILDREN ON THE AUTISM SPECTRUM

Tammy SH Lim[1,3], Wing Yan Yuen[2], Venkatesh Karthik[3], Yvonne Lim[4], Elizabeth M Teo[5], Chan Yiong Huak[6], Kalyani Vijaykumar Mulay[1], [1] Child Development Unit, Khoo Teck Puat-National University Children's Medical Institute, National University Health System, Singapore
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Objectives
The COVID-19 pandemic is reported to be associated with rising overweight and obesity rates. Children on the autism spectrum are known to have a higher risk of obesity than neurotypical children. Our study aims to describe the changes in overweight/ obesity rates in autistic children during the pandemic, and to identify contributing factors.

Methods
This is a retrospective electronic case record review of patients with a clinical diagnosis of autism, who were seen at a developmental-behavioural paediatrics clinic in a tertiary academic hospital, between 1 January 2019 and 24 October 2021. We compared the average monthly rates of overweight/ obese status pre and during the pandemic. We collected data on the patients' and parents' demographics, duration of screen time per day, degree of difficulties related to autism symptoms and cognition. We analyzed factors that were associated with being overweight or obese during the pandemic.

Results
1330 patient visits were included; 285 pre-pandemic, 1045 during pandemic. The mean age was 45.4 months (17.7 months); 78% of them were male; 52% were Chinese. The average monthly rate of overweight/ obese status increased by 1.8%, from 17.9% pre-pandemic to 19.7% during the pandemic. Factors associated with being overweight/ obese during the pandemic included: Malay ethnicity (OR 2.321, $p < 0.01$), developmental delay (OR 2.80, $p < 0.01$), and lower parental education level (father OR 1.73, $p=0.01$; mother OR 1.63, $p=0.03$). On multivariate analysis, only Malay ethnicity (OR 2.95, $p = 0.01$) was significantly associated with an increased odds of being overweight or obese.

Conclusion
Our study confirmed our clinical findings of a rising overweight/ obesity rate during the pandemic. It also identified certain patient profiles that are at higher risk (Malay, developmental delay, lower parental education). This would facilitate the implementation of preventative health screening, specifically supporting these high-risk children.

ABSTRACTS

Ref. ID: A-0010 (Poster Presentation)	Nutrition

PARENTAL EATING ATTITUDES AND CHARACTERISTICS OF ADOLESCENTS WITH EATING DISORDERS: A PILOT STUDY.

Kheng Hui CHUAH[1], Norita binti MOHAMAD ZIN[2], Sheila MARIMUTHU[2].
[1]Department of Paediatrics, Adolescent Medicine Unit, Hospital Pulau Pinang, Pulau Pinang, Malaysia.
[2]Department of Paediatrics, Adolescent Medicine Unit, Hospital Tunku Azizah, Kuala Lumpur, Malaysia.

Background
Studies on adolescents diagnosed with eating disorders in Malaysia are limited.

Objective
This study aimed to understand the parental eating attitudes, sociodemographic and clinical characteristics of adolescents diagnosed with eating disorders at Hospital Tunku Azizah.

Methods
A cross-sectional adolescent-parent/s dyad design (n = 25). Parental eating attitudes were assessed using EAT-26 questionnaire. The parental self-reported findings were paired with medical record review data of the adolescents before analysis with frequency distributions and descriptive statistics.

Results
All of the adolescents were female. The majority had Restrictive type Anorexia Nervosa (88%) followed by Bulimia Nervosa (8%) and Avoidance Restrictive Food Intake Disorder (4%). In terms of ethnicity, Chinese were the majority (52%) followed by mixed parentage (20%), Malay (16%) and Indian (12%). Mean age of diagnosis was 14.98 years (SD = 1.94) but mean symptom-onset-to-diagnosis interval was as long as 14.16 months (SD = 9.97). BMI on diagnosis range from 11.8kg/m2 to 21.5kg/m2 (mean = 15.67). Three quarter of them (76%) needed inpatient treatment and more than half (52%) had refeeding syndrome during nutritional rehabilitation. Mean duration of follow-up was 16 months (SD = 10.11). Among these 25 adolescents, 80% reported adverse childhood experiences, 72% have co-occurring mental health issues and 24% showed neurodivergent traits. None of the 34 parents (20 mothers, 14 fathers) who correctly filled out the EAT-26 had a score above the cutoff level of 20 or higher. This may reflect lower likelihood of disordered eating among the parents although self-reported screening has its own limitations.

Conclusions
It is imperative to promote eating disorders awareness in the region to enable earlier diagnosis and interventions. Future practices and research should consider incorporating assessment of neurodiversity traits and adverse childhood experiences during assessment of eating disorders.

Keywords:
eating disorders; anorexia nervosa; bulimia nervosa; adolescent health; paediatrics.

ABSTRACTS

Ref. ID: A-0011 (Poster Presentation)	Nutrition

PUZZLE RESOLVED WITH NEW DIETETIC APPROACHES IN FALTERING GROWTH - A CASE STUDY

Sheau Ping Chai[1], Margaret Selina Paie1, Azleen Binti Jamil[1], Mohammad Fuad Bin Sallehuddin[1], Ai Ling Koa[1]
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Introduction
Existing interventions for faltering growth include strategies to increase energy and protein intake by handing various feeding behaviours and feeding practices. Besides, energy-dense oral nutritional supplements (ONS) are commonly used. Nevertheless, the weight gain pattern was not always positive despite protein and energy adequacy.

Case Presentation
Girl A, age 2 years 5 months old, presented with febrile fit, isolate speech delay and faltering growth. Weight upon admission was 9.7kg (underweight), height was 89cm (normal) whereas BMI was 12.2kg/m2 (severely wasted). The mother reported that patient had consistent and homogenous foods intake. Patient would usually take one proper main meal per day (rice, chicken and broccoli), excluding eggs and cow's milk due to eczema. On top of that, patient would take chocolate flavoured cereals and popcorn as snacks. Soy Formula is given Formula 5 Oz, 4 times per day. Estimated Energy Intake is 1559kcal and 42.4g protein per day compared to Estimated Energy Requirement (EER) of 1313kcal and protein requirement of 18.8g per day. Despite higher protein and energy achieved, the growth of the child remained problematic. Thence, mother was advised on minimal meal frequency with proper 3 main meals, educated on minimum dietary diversity (MDD) and calorie-dense food preparation while continue with soy formula. On Follow up visit after 3 months, weight has increased to 10.4kg. Patient was having increased main meals to 2 times per day with achieved minimal diet diversity.

Discussion and Conclusion
Dietary approaches in managing faltering growth should not only focus on energy and protein adequacy. New strategy called Minimal Acceptable Diet (MAD) emphasizing on Minimal Meals Frequency (MMF) and Minimal dietary diversity (MDD) as an approach to ensure the wholesome dietary intake is believed to be able to solve the puzzle.

Keywords: faltering growth, minimal acceptable diet, minimal meals frequency, minimal dietary diversity

ABSTRACTS

Ref. ID: A-0012 (Poster Presentation)	Nutrition

ALL-IN-ONE PARENTERAL NUTRITION ADMIXTURE AMONG PAEDIATRIC HOME CARE IN UNIVERSITI MALAYA MEDICAL CENTRE: PHYSICAL STABILITY WITH HIGH ELECTROLYTES CONCENTRATION.

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Electrolyte-enriched parenteral nutrition (PN) admixtures are commonly used in clinical practice, particularly in paediatric wards. Parenteral nutrition supplementation with high electrolyte concentrations poses a challenge due to decreased lipid emulsion stability caused by bivalent cations. A study was conducted to evaluate the stability of all-in-one PN admixtures among 9 pediatric patients on home PN care with higher than normal electrolyte levels. A combination of amino acid, glucose, fat derived from fish oil, electrolytes, trace elements, water soluble and fat soluble vitamins were compounded in ethylene vinyl acetate bags. The admixtures contained high concentrations of sodium and potassium (200 mmol/l), calcium (20 mmol/l), magnesium (15 mmol/l), and phosphate (15 mmol/l) due to therapeutic needs. Admixtures were stored at 2 ± 8 â—¦C for up to 14 days with light protection. Visual inspection and pH determination were used to evaluate the stability immediately upon preparation (Day 0), Day 7, and Day 14 of storage. Creaming was observed visually following 24 hours of storage in all admixtures and persisted over the course of 14 days but easily disappeared after short mixing. The baseline pH values varied from 5.1 to 6.3. On day 7, the pH values of 5 admixtures were ±0.1, 1 admixture was ±0.4 and 2 admixtures were ±1. Subsequently, on day 14, pH values of all admixtures were observed to have a minimal change of ±0.1. Despite exceeding specified limits of electrolyte contents, six of the admixtures tested showed appropriate physical stability for fourteen days. These admixtures can be administered to patient only with the same composition containing the same or a lower concentration of electrolytes. In conclusion, the recommendation is to administer the PN admixture through central veins, both immediately after preparation and following four days of storage at a temperature of 2 ± 8 â—¦C while ensuring light protection.

ABSTRACTS

Ref. ID: A-0013 (Poster Presentation)	Hepatology

PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS TYPE 3: POSSIBLE NEW VARIANT OF ABCB4 MUTATION. CASE SERIES TO DESCRIBE 5 CHILDREN PRESENTING WITH LIVER DISEASE IN SABAH.

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Background
Progressive Familial Intrahepatic Cholestasis Type 3 (PFIC3) is a rare autosomal recessive disorder causing disorder in bile acid transport, leading to cholestatic liver disease. It is caused by a mutation in the ABCB4 gene encoding the multidrug resistance protein 3 (MDR3) and this mutation leads to impaired biliary phospholipid secretion.

Objective
The main objective of this study is to present a case series involving 5 Sabahan children with PFIC3. The diagnosis of PFIC3 in these 5 children was confirmed by genetic analysis by Whole exome sequencing (WES) or cholestatic genetic panel. All the 5 children has the same homozygous mutation (c.21777C>T (p.Pro726Leu)) in the ABCB4 gene, and this could be a new, unreported variant.

Results
The age of their first presentation ranges from 1 to 5 years old, with variable clinical manifestation and outcome. Their presentation includes hepatosplenomegaly, portal hypertension and chronic liver disease. Patient 1 passed away at 5 years 8 months due to end stage liver disease; Patient 2 developed progressive hepatocerebral degeneration at 6 years old with end stage liver disease at 11 years old; patient 3 and 4 have chronic liver disease at 6 and 14 years old; Patient 5 developed end stage liver disease at 5 years 5 months old. In all patients, extensive workout was done to rule out inborn error of metabolism, autoimmune disease, hematological malignancy, Wilson disease, Alagille syndrome prior to establishment of diagnosis via genetic molecular study.

Conclusion
This case series highlights the potential benefit of using genetic testing to identify potential causes of cholestatic liver disease in children. In these 5 children, they all have the same homozygous variant identified and this variant has not been previously reported. This variant could be common in the Sabahan population, and further studies would be needed to confirm this.

ABSTRACTS

Ref. ID: A-0014 (Poster Presentation)	Nutrition

CASE STUDY: NUTRITION MANAGEMENT OF CONGENITAL GLUCOSE-GALACTOSE MALABSORPTION (CGGM): COST-SAVING AND EFFECTIVENESS.

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Congenital glucose-galactose malabsorption (CGGM) is a rare diarrheal disorder caused by a cotransport (SLC5A1) defect in the intestine. At the age of 45 days, an Afghan child was diagnosed with congenital diarrhoea of unknown origin. She gained very little weight—2.6 kg from 2.5 kg at birth. She had chronic diarrhoea and was prescribed elemental formula after seeing a dietitian, but her condition didn't get better. Once TPN was begun and kept NBM, her frequency of stools decreased. She was given Isomil Ross Carbohydrate Free (RCF) formula after three weeks of TPN due to a suspected case of CGGM. Her health improved with one stool output daily once RCF with added fructose powder was introduced, and she steadily gained weight. She was discharged after achieving full feeding. The cost of feeding the patient on Galactomin-19, a fructose-based formula, is RM84 per day. Feeding costs are RM 20 per day as compared to RCF supplemented with fructose powder. It will thus result in monthly savings of up to RM1920. This will lessen the financial strain on parents who must continue to supply the formula milk after being discharged from the hospital. Additionally, as the patient gets older, the feeding volume will increase. After starting on carbohydrate-free formula, the patient showed improvement right away, and the outcome is equally successful as using fructose-based formula. Although using a carbohydrates-free formula is a better option financially, but the feeding optimization requires careful consideration of the quantity of fructose powder to add in the appropriate amount of feeding dilution. This case study highlights how crucial it is to identify the proper formula and make the right diagnosis of congenital diarrhoea. After initiating the nutrition intervention, the patient's condition significantly improved, resulting in a shorter hospital stay and cost savings.

ABSTRACTS

Ref. ID: A-0015 (Poster Presentation)	Hepatology

SEVERE ENTEROVIRUS INFECTION IN YOUNG INFANTS: CLINICAL FEATURES AND OUTCOME

SEVERE ENTEROVIRUS INFECTION IN YOUNG INFANTS: CLINICAL FEATURES AND OUTCOME

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Background
Enterovirus (EV) infections are usually self-limiting but life-threatening complications including acute liver failure (ALF), myocarditis and meningoencephalitis in infants have been reported. Herein we described clinical features and outcome in 10 infants with confirmed severe EV infection.

Methods
Confirmed cases of EV infections in infants (< 3 months old) admitted to University Malaya Medical Centre were identified using the hospital Electronic Medical Records from September 2023 to February 2024. Identified patients had laboratory-confirmed EV detection from body samples using reverse transcriptase polymerase chain reaction (RT-PCR). Clinical data on admission and follow-up were reviewed. Patients were categorized into mild infection if they presented with isolated hepatitis, myocarditis or meningoencephalitis, and severe infection if they had mild infections with ALF.

Results
Of the 10 infants with confirmed EV infection, 5 (50%) patients had severe infection: ALF (n=5) with, myocarditis and meningoencephalitis (n=2) myocarditis (n=2) and meningoencephalitis (n=1). Patients with severe infection presented at < 2 weeks old with a median age of 6 days. Common presentations were lethargy, respiratory distress requiring intensive care. Four had EV detected from serum RT-PCR and Echovirus-11 serotype was identified. All with severe infection had thrombocytopenia with raised aspartate transaminase and alanine transaminase > 5 times of upper normal limit with deranged coagulation. Three of the 4 patients who received early IVIG (< 3 days onset) survived while 2 patients had exchange transfusion. Of the 5 patients with severe infection, 2 died, 3 survivors had prolonged hospitalisation (>14 days). Two of the 3 survivors had chronic liver disease with portal hypertension, and 1 had improving anicteric hepatitis (< 2ULN).

Conclusions
Severe enterovirus infection may result in life-threatening complications such as chronic liver disease and death. Prompt diagnosis in infants is necessary for early IVIG and supportive management.

Keyword: Enterovirus, Acute liver failure, myocarditis, Meningoencephalitis, IVIG.

ABSTRACTS

Ref. ID: A-0018 (Poster Presentation)	Gastroenterology

TB AWAKENS: THE BIOLOGIC MENACE

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Background
Infliximab is a humanized antibody targeting tumor necrosis factor □ (TNF-□), with a promising outcome for inflammatory bowel disease (IBD) treatment. However, its use may elevate the risk of tuberculosis.

Case presentation
T.S is a 5 years 11 months old Down Syndrome boy with disseminated smear positive pulmonary tuberculosis with lymph node and central nervous system involvement post infliximab commencement for the treatment of ulcerative colitis. Patient presented with persistent haematochezia for 3 weeks despite completion of antibiotics, accompanied with weight loss and elevated inflammatory markers. Colonoscopy confirmed the diagnosis of ulcerative colitis. Tuberculosis screening for acid fast bacilli (AFB) smear and culture were negative. Oral prednisolone and Pentasa was started, however symptoms recur again after offed steroid. Hence, the patient was sequential to infliximab. Although overall gastrointestinal symptoms and inflammatory markers improved after 2 months, patient developed haematochezia again with persistent fever despite completion of antibiotic and adequate level of infliximab. MTB gene expert came back as positive. Infliximab was offed, steroid was maintained and anti TB was started. Infliximab was restarted after 3 months of anti TB, however patient developed prolonged fever, chesty cough, TB constitutional symptoms with cervical lymphadenitis and upper motor neuron signs. TB was detected from smear and sputum gene Xpert. Anti TB treatment was restarted and patient showed improving TB symptoms.

Conclusion
Infliximab raises the tuberculosis incidence with a significant proportion of extra-pulmonary and disseminated forms. Screening and treating for TB prior to infliximab is not sufficient, additional follow-up is required in order to carefully assess the potential of tuberculosis infection occurring at any dosage, months or years after infusion particularly in patients with compromised immune systems. Careful use of biologic with close observation of this potentially fatal side effect is crucial to prevent fatal complications.

Keywords: Ulcerative Colitis, Infliximab, Tuberculosis Infection.

ABSTRACTS

Ref. ID: A-0019 (Poster Presentation)	Hepatology

WILSON, IS THAT YOU? A CASE OF CONJUGATED HYPERBILIRUBINEMIA WITH LOW CERULOPLASMIN LEVELS.

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Introduction
Ceruloplasmin, a plasma metalloprotein synthesized primarily in hepatocytes, has various importance within the body. Known for its role in copper transport, it also has roles in iron homeostasis (required by ferroportin to export iron from macrophages, hepatocytes, and glial cells) and antioxidant properties. It is involved in the metabolism of polyamines, catecholamines, and phenols. Ceruloplasmin level tests can be costly and non-specific as they are also acute phase reactants. And its low levels in cholestatic liver disease are not limited to Wilson's disease (WD). Low levels of ceruloplasmin have been reported in patients with Alzheimer's disease and Parkinson's disease.

Objectives
Reporting a case of Rotor syndrome with low ceruloplasmin level. 2) To describe the causes of low ceruloplasmin levels and their possible implications.

Case summary
We report an 11-year-old Chinese boy with an incidental finding of sclera icterus during an orthopedic clinic visit for chest wall deformities and kyphoscoliosis. He did not have other Marfanoid features. He was examined well, with no stigmata of chronic liver disease and no hepatosplenomegaly. Investigation showed conjugated hyperbilirubinaemia, low gamma-glutamyl transpeptidase(GGT), normal aminotransferase levels, and liver synthetic function. He was investigated for WD because of low ceruloplasmin levels. The 24-hour urine copper level was within a standard value. Other investigations – viral hepatitis, autoimmune panels, alpha-1-antitrypsin level, ultrasound abdomen, and liver transient elastography were unremarkable. Urine for Coproporphyrin ratio was suggestive of Rotor syndrome, which was subsequently confirmed by whole exome sequencing (homozygous pathogenic variants in the SLO1B2 gene).

Conclusions
Rotor syndrome may be associated with low ceruloplasmin levels. However, despite the benign nature of the liver condition, the long-term health-related (especially neuro-cognitive) association of hypoceruloplasminemia is still deemed uncertain. Thus, more studies are needed to address this concern.

ABSTRACTS

Ref. ID: A-0021 (Poster Presentation)	Gastroenterology

A RARE CAUSE OF RECURRENT PAINLESS PER RECTAL BLEEDING IN INFANCY: INSIGHTS INTO BANNAYAN-RILEY-RUVALCABA SYNDROME.7

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Introduction
Painless haematochezia in infant is a rare clinical presentation. It is often attributed to conditions such as enterocolitis, food allergy, Meckel's diverticulum and less commonly, intestinal polyps.

Case Report
We report the case of a 3-year and 8-month-old Malay boy who had recurrent painless per rectal bleeding and passage of polyp-like lesions from the age of six months. Initially treated as outpatient for presumed dysentery and food allergies, he developed severe symptomatic anaemia secondary to profound iron deficiency as well as hypoalbuminemia, necessitating hospitalisation and further diagnostic evaluation. Endoscopy examination revealed multiple polyps of varying sizes throughout the entire colon includes the terminal ileum. Histology of resected lesions was compatible with juvenile polyps. With the presence of other features: macrocephaly, lipomas, haemangioma, inguinal hernia, intellectual disability prompted the diagnosis of Bannayan-Riley-Ruvalvaba Syndrome (BRRS) which was confirmed with genetic testing showing a heterozygous deletion of PTEN probes and adjacent BMPR1A probe. The mutation in BMPR1A explained the associated juvenile polyposis syndrome of infancy.

Conclusion
BRRS, one of the PTEN hamartoma tumour syndrome, is a rare cause of gastrointestinal polyposis. This case emphasises the importance of considering genetic syndromes when encountering atypical presentations of intestinal polyps in young children.

ABSTRACTS

Ref. ID: A-0022 (Poster Presentation)	Interdisciplinary

COUGH INDUCED BY PARENTERAL NUTRITION EXTRAVASATION IN A CHILD ON LONG TERM HOME PARENTERAL NUTRITION

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Introduction
Intestinal failure in children is a severe, debilitating illness necessitating long-term parenteral nutrition (PN). Exhaustion of vascular access for central venous catheter (CVC) placement is a significant problem in those on long-term PN. Many complications related to CVC have been reported. Herein we described a rare complication in a child on long-term home PN.

Case Presentation
Q is an 11-year-old boy on long-term home PN secondary to intestinal dysfunction of undetermined aetiology since 1.5 years old. He has repeated episodes of CVC-associated bloodstream infections, requiring numerous CVC change. A tunnelled CVC (Hickmann® sized 6.2Fr, single lumen) was inserted via the left subclavian vein under radiologic guidance. The tip of the CVC was placed at the level of 4th thoracic vertebra. He presented with a persistent dry cough after 10 weeks of CVC insertion. The cough happened at the start of PN infusion, improved when the infusion rate was reduced, and disappeared after PN infusion was stopped. Similar symptoms recurred every night during PN infusion. No fever or respiratory distress were noted. CXR was reported as normal. Subsequently, a CT venogram revealed a hypodense collection in the right mediastinum adjacent to the bifurcation of the main bronchi, indicating PN extravasation(Image 1). The tip of CVC was seen abutting on the wall of a collateral vein, primary vessels suitable for CVC insertion were all thrombosed. The CVC was replaced with a new catheter with the tip in the retro-tracheal mediastinal collateral vein. The cough resolved completely thereafter. At the time of writing, the CVC sited in a collateral vein is functioning, 22 months after initial treatment.

Conclusion
A high index of suspicion of CVC malposition should always apply in children on long-term PN. A good-sized collateral vein can be a life-saving alternative for central venous access in children with primary vessel-exhaustion.

ABSTRACTS

Ref. ID: A-0023 (Poster Presentation)	Hepatology

AUXILIARY PARTIAL ORTHOTOPIC LIVER TRANSPLANT (APOLT) FOR PAEDIATRIC ACUTE LIVER FAILURE: ADVANTAGES AND POST-OPERATIVE MONITORING

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Introduction
Paediatric acute liver failure (PALF) carries a high mortality rate and liver transplant is the standard of care. In APOLT, an auxiliary graft is transplanted into recipient's abdominal cavity in anatomical position with partial hepatectomy of native liver. Auxiliary graft supports the lost liver function whilst native liver regenerate and recover, allowing possibility of withdrawal of immunosuppressant in the future.

Case summary
A 12-year-old girl presented with progressive jaundice for 2 weeks following a week of abdominal pain, vomiting, anorexia and lethargy. She had neither known medical illness nor history of travelling nor history of taking any unprescribed medication. Clinically she was jaundiced, but no stigmata of chronic liver disease and not encephalopathic. Investigations showed acute liver failure with bilirubin of 239mg/dL ALT 1500U/L, AST 1240U/L GGT 171U/L ALP 617U/L Albumin 32g/dL and INR of 2.2, which further worsened to 2.7 despite daily intravenous Vitamin K. Investigations for infective, metabolic and autoimmune aetiology were unremarkable. She continued to deteriorate and fulfilled King's College criteria for liver transplantation despite optimal medical support. APOLT was done one week after admission. Intra and post-operative period was uneventful. Graft and native liver function were monitored by serial liver function tests, Doppler ultrasound, diisopropyliminodiacetic acid (DISIDA) scan and liver biopsy. She had one episode of acute rejection 5 months post APOLT that responded to pulsed intravenous steroid and had no biliary or vascular complication. Radiology investigations and liver histology 6 months post transplant showed regeneration of native liver.

Conclusion
APOLT allows spontaneous recovery and regeneration of native liver, rendering the chance of immunosuppression free life. Postoperative monitoring for APOLT will require serial imaging of biliary and vascular system to closely monitor technical complications, hepatic excretion function, computed tomography volumetric scan of the liver and liver biopsy, as liver function will take time to normalize.

ABSTRACTS

Ref. ID: A-0025 (Poster Presentation)	Nutrition

THE CORRELATION BETWEEN BMI, VISCERAL FAT AND BLOOD PRESSURE IN STUNTED SCHOOL-AGE CHILDREN

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Background
Stunting or chronic undernutrition is a prevalent type of malnutrition. Childhood stunting can be related to short adolescent and adult stature and may have intergenerational effects. The prevalence of stunting children in Indonesia is 30,8% in 2018 . Indonesian children were 5-10 cm shorter than WHO standards, with deterioration in growth trajectories evident from early school age through older adolescence. Early stunting is considered as a contributing factor for the development of overweight and adiposity in later stages of life. Metabolic syndrome such as developing hypertension can affected as complication of obesity.

Objectives
To determine the correlation between BMI, visceral fat, and blood pressure in stunted versus non-stunted school-age children.

Methods
A case control study involving 191 children aged 8 years for the female and 9 years for the male. The subjects divided into two group according to HAZ status: stunted (HAZ score <–1.64) vs. non-stunted (HAZ score > 1.64).

Results
The subjects consisting of 98 stunted children and 93 non-stunted children were evaluated. Stunted children had significant higher BMI, BMI-for-age-z-score, waist circumference, visceral fat and total body fat, also less upper arm circumference, muscle mass, muscle quality, basal metabolic rate and bone mass compared to non-stunted children. Boys in non-stunted group were showed significant higher age, body weight, body height and muscle mass. Stunted girls showed highest BMI and visceral fat. There was a significant association between HAZ score with BMI and visceral fat, but no association with blood pressure.

Conclusion
Stunted children are associated with greater BMI and higher visceral fat, although there is no connection with systolic and diastolic blood pressure. Stunted children, particularly girls, face a heightened risk of developing overweight and obesity in their later years.

Keyword : BMI, Visceral fat, Blood Pressure , Stunted , Children

ABSTRACTS

Ref. ID: A-0026 (Poster Presentation)	Nutrition

DEVELOPMENT AND EVALUATION OF LOW PROTEIN RECIPES FOR MALAYSIAN PAEDIATRIC PATIENTS WITH DISORDERS OF AMINO ACID METABOLISM (AAMDS)

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Objective
The principles of dietary treatment for patients with disorders of amino acid metabolism (AAMDs) include a lifelong restriction of natural protein intake. However, there is no attempt to develop low protein recipes using local ingredients for these patients. Hence, this study aim to develop and assess the acceptability of low protein recipes for AAMDs patients.

Methodology
The modification process was carried out by considering the individual's tolerated range of natural protein. The ingredients used in the recipe formulation were selected based on the following factors: the common low protein foods that patients consume, the amount of natural protein per serving, availability, price, cultural appropriateness, and the method of preparation. In regard to the weaning diet recipes, they consist of 0.5-1.0g of protein per meal, while the main meal recipes consist of 2.0-3.0g for each meal. The nutritional values of all the recipes were calculated using the Nutritionist Pro software. Sensory evaluation was conducted by three panels of clinical dietitians and academic dietitians or nutritionists who specialized in the pediatric field. The recipes were evaluated for their color, appearance, body and texture, taste and flavour and overall acceptability using a five-point hedonic scale.

Results
5 main dishes and 4 snacks were formulated. All the recipes have scored a minimum of 3 out of 5 points for taste, appearance, smell, mouthfeel, aftertaste, and general acceptability, indicating they are generally acceptable.

Conclusion
In conclusion, the low-protein recipes show good acceptance among healthcare professionals. Hence, development and evaluation studies related to low protein recipes should be carried out regularly to improve diet quality of AAMDs patients through the introduction of more affordanle new recipes using local ingredients.

ABSTRACTS

Ref. ID: A-0027 (Poster Presentation)	Hepatology

REMOTE ASSESSMENT OF NEWBORN STOOL COLOR FROM SMARTPHONE IMAGES: A PILOT VALIDATION STUDY

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Background:
The early detection of acholic stool is essential for neonatal cholestasis management. With advances in technology, sharing stool images for remote consultation has become common. Yet, the accuracy of doctors in interpreting imagesthrough smartphone displays has not been validated.

Objectives:
This pilot study assessed the feasibility of a comprehensive study validating pediatric trainee doctors' ability to classify stool colors from smartphone images.

Methods:
In this prospective cross-sectional study, 259 stool images from infants aged 1 day to 2 months were collected at Tuanku Ampuan Najihah Hospital from June 1, 2023, to March 31, 2024. Three experienced pediatricians categorized these images as normal, pale, or atypical, based on the majority vote. Pediatric trainees were subsequently tested using a stratified random sample of these images (normal: pale stool ratio of 1:1) with a retest one week later using a stool color reference card. The doctors' paired performance was evaluated based on sensitivity, specificity, positive & negative predictive values, and accuracy, analyzed using the Wilcoxon test.

Results:
Twenty-one doctors were tested using 45 randomly selected images from the image pool. The participants included 57% junior doctors (ST1-2 equivalent) and 43% senior trainees (ST3 equivalent). Using the reference card, sensitivity for identifying pale stool increased from 74% to 90% ($p < 0.001$), negative predictive value from 81% to 92% ($p = 0.05$), and accuracy from 83% to 88% ($p = 0.31$). The median test time was 10 minutes with the reference, and 11 minutes without. The estimated sample size needed to reach adequate statistical power is 100 participants.

Conclusions:
Our pilot study validates the pediatric doctors'capability to identify pale stools from smartphone photographs,highlighting its potential to enhance remote telehealth consultations. The findings also suggest that a larger study with at least 100 participants is feasible to achieve statistical power.

ABSTRACTS

Ref. ID: A-0028 (Poster Presentation)	Nutrition

OUTCOME AND CENTRAL VENOUS CATHETER-RELATED COMPLICATIONS OF HOME PARENTERAL NUTRITION (HPN) IN CHILDREN: A SINGLE CENTRE EXPERIENCE.

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Background:
Children with intestinal failure require long term parenteral nutrition to support adequate growth. Such patients thus require home parenteral nutrition (HPN) which in turn requires a central venous access which serves as their lifeline.

Objective:
We aimed to review the characteristics and outcomes of our home parenteral nutrition (HPN) children with a particular focus on central venous catheter-related complications.

Design:
We conducted a retrospective review of all children who were initiated on HPN at our institution. We reviewed their demographics and characteristics as well as catheter-related complications such as leak, thrombosis, catheter migration and breakage. We also reviewed the incidence and profile of catheter-related bloodstream infections (CRBSIs) in this cohort of patients.

Results:
A total of 8 patients were included of which there were 2 sets of siblings. The main 2 indications for requiring catheter change were infection and catheter migration. The patient with the longest duration of parenteral nutrition (PN) days developed significant thrombosis and depleted venous access, requiring a collateral vein catheter placement. A major complication of HPN was catheter-related bloodstream infections (CRBSIs) of which methicillin-sensitive Staphylococcus aureus (MSSA) was the most common organism. There was one mortality.

Conclusion:
Catheter-related infections were a major indication requiring catheter change. Longer duration of PN days was associated with thrombosis and depleted venous access. Regular opportunistic review of caregiver practices is essential to prevent infections. Routine ethanol lock may be a viable strategy to reduce the incidence of infections.

Keywords: home parenteral nutrition, children, central venous catheter, intestinal failure

ABSTRACTS

Ref. ID: A-0031 (Poster Presentation)	Others :

LIVER TRANSPLANTATION IN ALAGILLE SYNDROME WITH SEVERE PRURITIS AND XANTHOMATOSIS: A CASE REPORT

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Background:
Alagille syndrome (ALGS) is an autosomal dominant disease, characterised by abnormalities in the liver, heart, eyes, skeleton and facial features. ALGS is caused by mutations in either JAG1 or NOTCH2 genes.1 Paucity of bile ducts is the characteristic feature causing cholestatic disease, resulting in intractable pruritus and xanthomas formation.2Cholestatic pruritis and dyslipidemia in ALGS is occasionally refractory to pharmacological therapies and liver transplantation is the known treatment in such circumstances.

Case presentation:
A 5-year-old-boy, was first evaluated for cholestasis at the age of 3 months. Cardiac and ophthalmological evaluation, including skeletal survey were revealed to be normal. On table cholangiogram demonstrated contrast seen over the hypoplastic left and right hepatic duct and gallbladder. Liver biopsy reported bile ducts paucity and subsequent genetic study confirmed the presence of JAG1 mutation. He developed progressive xanthomas since 2 years old, affecting his limbs, palms and soles. This was accompanied by severe pruritis affecting his sleep and hence was referred to gastroenterology unit for liver transplant. Clinical examination revealed an icterus child who is small for age with prominent forehead and bulbous nose. There were multiple discrete xanthomas over the palm, buttocks, elbows and knees. Xanthelasma were noted at medial canthus of the lower eyelids. Laboratory tests showed conjugated hyperbilirubinemia, hypoalbuminemia, elevated aminotransferases and dyslipidemia. Ursodeoxycholic acid was prescribed for intrahepatic cholestasis, along with Atorvastatin 2.5mg daily and multiple anti-pruritic agents for 6 months. These measures did improve the symptoms and levels satisfactorily. Liver transplant was scheduled and this resulted in tremendous breakthrough in the debilitating symptoms of pruritis. Subsequent follow-up showed improvement in cutaneous manifestations.

Conclusion:
The spectrum of cutaneous involvement in ALGS is extremely variable with severe cases presenting with pruritis and extensive xanthomas. The role of liver transplantation in addressing these problems is highlighted in this report.

ABSTRACTS

Ref. ID: A-0033 (Poster Presentation)	Gastroimmunology

EPIDEMIOLOGY AND PREVALENCE OF SENSITIZATION TOWARDS FOOD ALLERGENS AMONG MALAYSIANS: A RETROSPECTIVE SINGLE-CENTER STUDY

Felicia Lee Yiik Bing[1], Henkie Isahwan Ahmad Mulyadi Lai2, Adli Ali1*

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[2]Department of Medical Sciences Fakulty of Health Sciences, University College MAIWP International

Introduction
Food allergy is a common disorder, with an increasing prevalence. The overall worldwide prevalence of food allergies is between 2% - 6% of which among children the prevalence ranges from 6.5% - 8.0%. The prevalence of food allergies among Asians (Taiwan, Singapore and Korea) were ranging from 3.4% - 7.7%. Hence, we aim to look at the epidemiology and prevalence type of food allergies using specifc IgE test at Hospital Pakar Kanak-Kanak, Malaysia.

Methodology:
This is a retrospective study in a single-center hospital involving 120 pediatric and adult Malaysian atopic populations who had been clinically diagnosed to have food allergies. They were tested for serum specific IgE against food allergens in addition to combinations of other allergens using Protia Allergy-Q 96 kit. A total of 91 allergens are tested and 44 out of 91 consists of food allergens.

Results:
Among the 120 serum samples tested, 92 (76.6%) were tested positive for food allergens. Children of < 18 years old had the highest numbers of positive result towards specific IgE test, consisting of 72 subjects (60%) of which 54 among them (58.6%) developed sensitization towards other food allergens. The top 3 food allergens are shrimp (23, 7.7%), wheat flour (18, 6%) and egg white (17, 5.7%). We also demonstrated that most of the moderately strong to extremely strong sensitization of shrimp was associated with crab (26%), milk (8.6%) and wheat flour (8.6%) allergens.

Conclusion:
Food allergies is a major concern among the public. In this retrospective study, it can be shown that there is a high prevalence of sensitization towards Shrimp and co-sensitization with other 4 common food allergens among Malaysian atopic paediatric populations of <18 years old.

ABSTRACTS

Ref. ID: A-0034 (Poster Presentation)	Nutrition

REDISCOVERING SCURVY: A CASE SERIES OF AN UNUSUAL CAUSE OF SKELETAL PAIN IN CHILDREN

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In this case series, we explored the scurvy cases found in our tertiary hospital, shedding light on its various clinical manifestations, and the importance of early recognition. If not treated, scurvy may lead to severe consequences, including death. The documented cases were from 2023 to 2024, and they were all initially suspected of neurological, trauma, hematological, or immunological origin.

We reported three cases of scurvy in a child under 5 years of age and in two children over 5 years of age. They were all referred to our centre with the chief complaint of being unable to walk, edema, and pain in both legs. All children had complained of the pain for more than 3 months prior to admission. One of them had previously been admitted to a sub-district hospital and was given analgesics upon discharge. Other than pain and edema on both legs, they all experienced gum bleeding. Upon admission, none of them had a normal weight for their age. They have a low appetite and dislike eating fruits and vegetables. Neurological and immunological tests were unremarkable, but radiological findings indicated scurvy. A lack of plasma vitamin C in these case series is a limitation in our report since it is not available in our centre. All of the children received a daily dose of 300 mg of vitamin C, and all showed a significant improvement only within one week of treatment.

In conclusion, this case series emphasizes the importance of identifying pediatric scurvy as a rare but clinically significant condition that remains a diagnostic challenge in modern healthcare settings. The successful outcomes in our cases reaffirm the importance of early detection and intervention in pediatric scurvy. By raising awareness among healthcare providers, we hope to minimize morbidity and optimize outcomes.

ABSTRACTS

Ref. ID: A-0035 (Poster Presentation)	Gastroenterology

INFLIXIMAB FOR CHILDREN WITH INFLAMMATORY BOWEL DISEASES IN HOSPITAL TUNKU AZIZAH, KUALA LUMPUR

Choy Chen Kam[1], Hui Ling Leong[1], Ker Yang Chua[1]
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Affiliation : [1]Department of Paediatrics, Hospital Tunku Azizah, Kuala Lumpur, Malaysia

The paediatric gastroenterology unit of Hospital Tunku Azizah (HTA) was established in 2018. The unit has diagnosed 110 IBD patients to date. The first IBD patient received infliximab in September 2019. This report aimed to describe the infliximab usage amongst IBD patients in HTA.

Methodology
All patients with IBD in HTA are seen by the paediatric gastroenterologist. Indications for starting infliximab include steroid dependency, steroid refractory disease, perianal disease and very severe colitis on diagnosis. A standard operating procedure guides the whole process, starting from criteria for patient selection, initiation of infliximab, monitoring, and follow ups.

Results
From September 2019 until January 2024, 30 patients with IBD were started on infliximab. Average age on diagnosis was 8.93 ± 3.79 years and average age on starting infliximab was 10.25 ± 4.01 years. Median duration from diagnosis to start of infliximab was 8.5 months [minimum 1, maximum 48]. Majority of patients were male (17, 56.7%) and had Crohn's disease (25, 83.3%). The ethnic distribution was 17 (56.7%) Malay, 10 (33.3%) Indian and 3 (10%) Chinese. C-reactive protein (CRP) had significant reduction at 6 months (median 2.15 mg/L [0.2, 134.4], p=0.010) and 12 months (2.85 mg/L [0.3, 87.8], p=0.005) compared to baseline (9.15mg/L [0.2, 113.8]). There were significant improvements at 6 months and 12 months for height (p<0.001 and p<0.001) and weight (p=0.002 and p=0.001). There were no significant changes for erythrocyte sedimentation rate and albumin levels. Three (10%) patients achieved deep remission. Three other patients discontinued infliximab due to disseminated tuberculosis (n=1), insufficient funding (n=1) and primary loss of response (n=1). Four patients (13.3%) had complications during treatment, including allergic reaction and dermatitis.

Conclusion
In conclusion, patients with inflammatory bowel diseases receiving infliximab in HTA had significant improvement of CRP, height and weight at 6 months and 12 months post treatment

ABSTRACTS

Ref. ID: A-0036 (Poster Presentation)	Gastroenterology

RETAINED GASTROPEXY DEVICE FOLLOWING PERCUTANEOUS ENDOSCOPIC GASTROSTOMY INSERTION

Salhatul Asma RUSLAN[1], Leela Devi MARIAPPEN[1], Kee Seang CHEW[1], Muhammad Muizz ABDUL MANAN[1], Ruey Terng NG[1], Way Seah LEE[1]
[1] Department of Paediatric Gastroenterology & Hepatology , University Malaya Medical Centre, Kuala Lumpur, Malaysia

Percutaneous endoscopic gastrostomy (PEG) tube is indicated under many situations. Utilisation of push technique of PEG placement enables low-profile gastrostomy tube (G-tube) to be inserted during initial placement. T-fastener gastropexy has been used as a technique to approximate the stomach during initial gastrostomy placement. T-fasteners are made of metal and designed to drop off after 2 to 4 weeks when the sutures are dissolved. We adapted the push technique with T-fasteners at our centre as the primary method of insertion. We present a spectrum of clinical presentations of retained T-fasteners and describe the outcomes.

Four patients underwent PEG tube insertion with introducer kit and T-fastener (Avanos MIC-KEY* gastrostomy feeding tube) between 2019 and 2023 for swallowing dysfunction on long term tube feeding. Patient 1 had recurrent G-tube (14 Fr x 1.2cm) internal balloon leakage resulting in repeated replacement of 6 devices over 9 months. Abdominal radiograph confirmed retained T-fasteners, adjacent to the stoma, puncturing the shaft of G-tube / base of balloon internally. The T-fastener was removed surgically via open laparotomy. Patient 2 had granuloma and serous discharge from the T-fastener site 2 months post PEG tube insertion requiring bedside excision and removal of the device. Patient 3 and 4 had the retained T-fasteners noted incidentally from abdominal radiographs performed for other indications. At latest review, no complications were reported so far at 11 months and 2 years post insertion respectively.

Conclusions: Retained T-fasteners may be associated with significant complications. Clinicians caring for children post-PEG tube insertion should have a high index of suspicion of this complication. The safety of MRI scan in patients who have retained T-fasteners are yet to be ascertained. The use of abdominal radiograph as a screening for retained T-fasteners pre-MRI should be considered for all patients who have metal T-fasteners inserted during PEG tube placement.

ABSTRACTS

Ref. ID: A-0037 (Poster Presentation)	Gastroenterology

THE EFFICACY OF ANTI-TUMOR NECROSIS FACTOR ALPHA (ANTI-TNF) IN PEDIATRIC CROHN'S DISEASE - STUDY IN A SINGLE CENTER IN A MIDDLE INCOME COUNTRY

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[1] Department of Paediatrics, Universiti Sains Malaysia
[2] Department of Paediatrics, University Malaya Medical Centre

Background
The prevalence of Pediatric inflammatory bowel disease (PIBD) in Malaysia is increasing in trend for the past decade) with more severe and complicated disease phenotype. This has led to the increased usage of biologics in treatment for PIBD.

Objective
To study the efficacy of treatment with anti-TNF in pediatric Crohn's disease in University Malaya Medical Centre (UMMC).

Methods
Retrospective cohort study of pediatric Crohn's disease patients managed under UMMC from September 2009 to March 2023. Data of time of diagnosis, phenotype using Paris classification, time to initiate biologics, Pediatric Crohn's Disease Activity Index (PCDAI) score at diagnosis, pretreatment, 3 months post and 1 year post anti-TNF, and reason for discontinuation were extracted from RedCap database and analyzed.

Results
29 from 55 pediatric Crohn's disease patients (52.7%) were treated with anti-TNF from 2009 until 2023. The youngest patient's age is 1.11 years old, with eldest 16.55 years old (mean age 9.45). Phenotypically, noted most of our patients have colonic disease (37.9%), non-penetrating (69%) and no perianal disease (62%). There is a significant mean difference between PCDAI score pre to 3 months [17.07 (95% CI 9.5 – 24.6)], and pre to 1 year prior to anti-TNF [23.48 (95% CI 15.9 – 31.05)]. Among 11 patients whose biological therapy was discontinued, 17% were due to lack of response, followed by defaulted treatment (14%), financial difficulty (3.4%) and allergic reaction (3.4%).

Conclusions
There is increased in usage of treatment with anti-TNF in pediatric Crohn's disease in Malaysia. Patients with CD are more likely to receive biological therapy with improvement seen in PCDAI at 3 months and1 year post treatment. Lack of response, loss of follow-up and financial issues were some of the reasons of biologics discontinuation.

Keywords: Pediatric, Crohn's disease, anti-TNF, efficacy, middle income country

ABSTRACTS

Ref. ID: A-0038 (Poster Presentation)	Hepatology

PAEDIATRIC LIVER TRANSPLANTATION : EXPERIENCE AND OUTCOMES AT A MALAYSIAN CENTRE

Siew Sing Chua [1], Choy Chen Kam[1]
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Introduction
Paediatric liver transplantation is the definitive treatment for both acute and chronic liver failure. Since the introduction of these services in Malaysia in 2002, there has been a significant improvement in patient outcomes. Our centre began offering paediatric liver transplant services in December 2020.

Methods
We conducted a retrospective analysis of all the paediatric liver transplants perfomed at our instituition from December 2020 until March 2024.

Results
Sixteen patients were included in this study, with a median age of 25.5 months(IQR: 19, 49.75), and over half were male. (56.3%). The observed median weight was 10.75kg(IQR: 8.88, 14.52). Ten patients underwent living-related liver transplant (LDLT), while six received deceased donor liver transplants (DDLT). The median of the waiting time was about 11.5 months. (IQR: 9.0, 16.75) and the median of Paediatric End-stage liver disease (PELD) score is 16.6 (IQR:14.43, 19.0). The primary condition necessitating the transplant in a vast majority (81%) was biliary atresia post Kasai procedures.

Although patients in DDLT group were older, had higher weight at transplant, longer waiting time, and higher PELD score, they had shorter hospital stays compared to the LDLT group; however, these differences were not statistically significant. The in-hospital mortality had markedly improved over time from 75% in 2021, to 66% in 2022 to 25% in 2023.

Conclusion
The study underscores the significant improvements in survival rates among paediatric liver transplant recipients at our centre, highlighting the positive impacts of initiating these specialized services. Continouos advancements in our transplant protocol and patient management strategies have enhanced survival rate over time.

POSTER PRESENTATIONS

NO.	REF. ID	ABSTRACT TITLE
1	A-0004	STARTING A NATIONAL INTESTINAL TRANSPLANTATION SERVICE IN SINGAPORE: OUTCOME OF THE FIRST 3 PAEDIATRIC RECIPIENTS
2	A-0005	IDENTIFYING BIOCHEMICAL AND RADIOLOGICAL FEATURES TO DIFFERENTIATE CYSTIC BILIARY ATRESIA FROM CHOLEDOCHAL CYST
3	A-0006	THE IMPACT OF COVID-19 PANDEMIC ON OBESITY RATES IN CHILDREN ON THE AUTISM SPECTRUM
4	A-0010	PARENTAL EATING ATTITUDES AND CHARACTERISTICS OF ADOLESCENTS WITH EATING DISORDERS: A PILOT STUDY.
5	A-0011	PUZZLE RESOLVED WITH NEW DIETETIC APPROACHES IN FALTERING GROWTH - A CASE STUDY
6	A-0012	ALL-IN-ONE PARENTERAL NUTRITION ADMIXTURE AMONG PAEDIATRIC HOME CARE IN UNIVERSITI MALAYA MEDICAL CENTRE: PHYSICAL STABILITY WITH HIGH ELECTROLYTES CONCENTRATION.
7	A-0013	PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS TYPE 3: POSSIBLE NEW VARIANT OF ABCB4 MUTATION. CASE SERIES TO DESCRIBE 5 CHILDREN PRESENTING WITH LIVER DISEASE IN SABAH.
8	A-0014	CASE STUDY: NUTRITION MANAGEMENT OF CONGENITAL GLUCOSE-GALACTOSE MALABSORPTION (CGGM): COST-SAVING AND EFFECTIVENESS.
9	A-0015	SEVERE ENTEROVIRUS INFECTION IN YOUNG INFANTS: CLINICAL FEATURES AND OUTCOME
10	A-0018	TB AWAKENS: THE BIOLOGIC MENACE
11	A-0019	WILSON, IS THAT YOU? A CASE OF CONJUGATED HYPERBILIRUBINEMIA WITH LOW CERULOPLASMIN LEVELS.
12	A-0021	A RARE CAUSE OF RECURRENT PAINLESS PER RECTAL BLEEDING IN INFANCY: INSIGHTS INTO BANNAYAN-RILEY-RUVALCABA SYNDROME.7
13	A-0022	COUGH INDUCED BY PARENTERAL NUTRITION EXTRAVASATION IN A CHILD ON LONG TERM HOME PARENTERAL NUTRITION
14	A-0023	AUXILIARY PARTIAL ORTHOTOPIC LIVER TRANSPLANT (APOLT) FOR PAEDIATRIC ACUTE LIVER FAILURE: ADVANTAGES AND POST-OPERATIVE MONITORING
15	A-0025	THE CORRELATION BETWEEN BMI, VISCERAL FAT AND BLOOD PRESSURE IN STUNTED SCHOOL-AGE CHILDREN
16	A-0026	DEVELOPMENT AND EVALUATION OF LOW PROTEIN RECIPES FOR MALAYSIAN PAEDIATRIC PATIENTS WITH DISORDERS OF AMINO ACID METABOLISM (AAMDS)
17	A-0027	REMOTE ASSESSMENT OF NEWBORN STOOL COLOR FROM SMARTPHONE IMAGES: A PILOT VALIDATION STUDY
18	A-0028	OUTCOME AND CENTRAL VENOUS CATHETER-RELATED COMPLICATIONS OF HOME PARENTERAL NUTRITION (HPN) IN CHILDREN: A SINGLE CENTRE EXPERIENCE.
19	A-0031	LIVER TRANSPLANTATION IN ALAGILLE SYNDROME WITH SEVERE PRURITIS AND XANTHOMATOSIS: A CASE REPORT
20	A-0033	EPIDEMIOLOGY AND PREVALENCE OF SENSITIZATION TOWARDS FOOD ALLERGENS AMONG MALAYSIANS: A RETROSPECTIVE SINGLE-CENTER STUDY

POSTER PRESENTATIONS

NO.	REF. ID	ABSTRACT TITLE
21	A-0034	REDISCOVERING SCURVY: A CASE SERIES OF AN UNUSUAL CAUSE OF SKELETAL PAIN IN CHILDREN
22	A-0035	INFLIXIMAB FOR CHILDREN WITH INFLAMMATORY BOWEL DISEASES IN HOSPITAL TUNKU AZIZAH, KUALA LUMPUR
23	A-0036	RETAINED GASTROPEXY DEVICE FOLLOWING PERCUTANEOUS ENDOSCOPIC GASTROSTOMY INSERTION
24	A-0037	THE EFFICACY OF ANTI-TUMOR NECROSIS FACTOR ALPHA (ANTI-TNF) IN PEDIATRIC CROHN'S DISEASE – STUDY IN A SINGLE CENTER IN A MIDDLE INCOME COUNTRY
25	A-0038	PAEDIATRIC LIVER TRANSPLANTATION: EXPERIENCE AND OUTCOMES AT A MALAYSIAN CENTRE

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Keita Nishiyama, Ph.D. (Associate Professor, Tohoku University)

Chairman Tadasu Urashima, Ph.D. (Professor Emeritus, Obihiro University of Agriculture and Veterinary Medicine)

PART II Applying HMOs Innovations to Drive Positive Change in Society

LECTURE 2: HMOs Business Opportunity & Application

Masayuki Ochiai , MSc. (Senior Manager, KYOWA HAKKO BIO CO., LTD.)

LECTURE 3: Global Scientific and Regulatory Aspects of Human Milk Oligosaccharides

Kirt Phipps, MSc, DABT. (Senior Manager, Intertek Assuris)
Yukiko Moriyama (Manager, Intertek Japan K.K.)

LECTURE 4: Effect and Concern of Breastfeeding in Infants

Hiromichi Shoji, M.D., Ph.D. (Associate Professor, Juntendo University)

Chairman Hiroko Kodama, M.D., PhD. (Specially Appointed Professor, Teikyo Heisei University)

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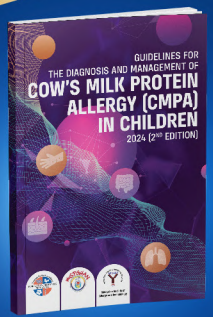

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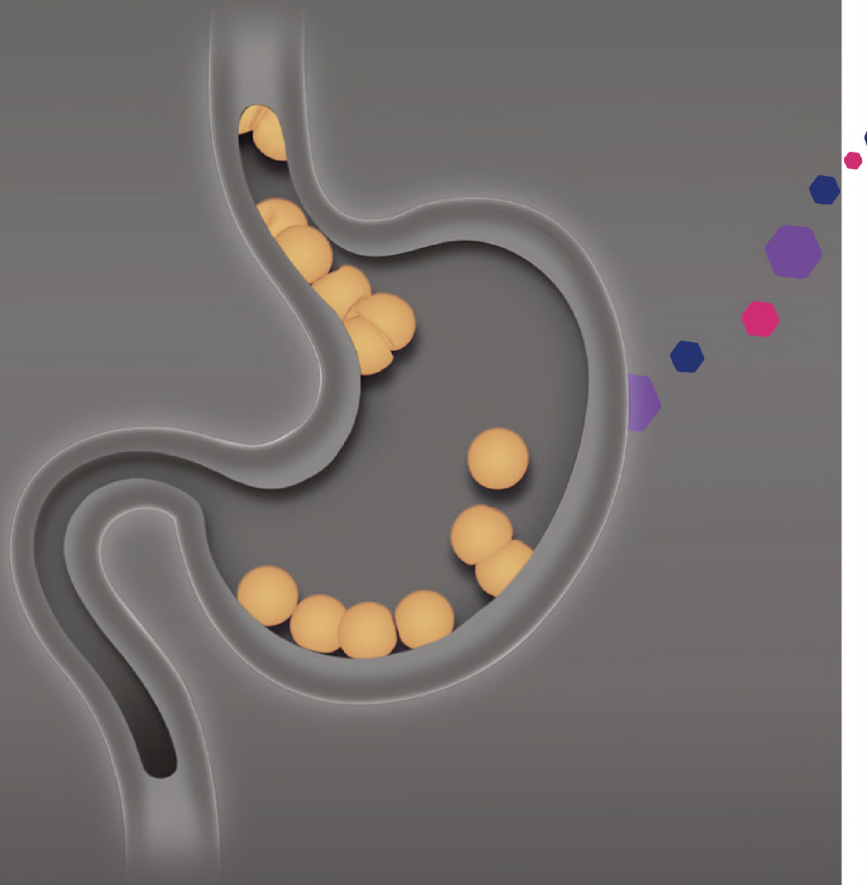

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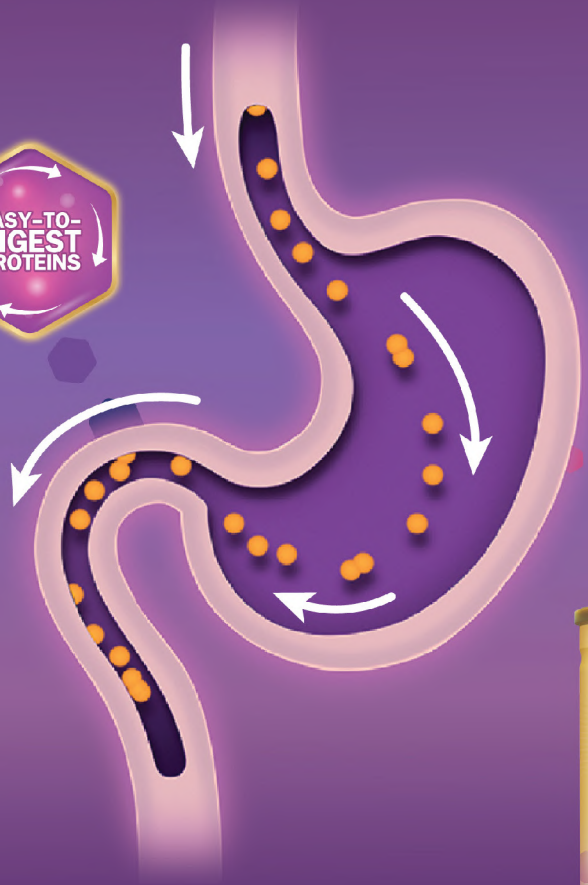

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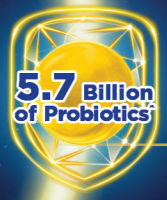

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