EuroSciCon

DAY 1

Scientific Tracks & Abstracts

2nd Edition of International Congress on

Pediatrics

March 26-27, 2018 | Edinburgh, Scotland

DAY 1

March 26, 2018

Sessions

Pediatrics | Pediatric Cardiology | Pediatric Urology
Pediatric Nephrology

Session Chair
Dietmar Schranz
Johann-Wolfgang Goethe University, Germany

Session Co-Chair
Micheal J Cooper
UCSF-Benioff Children's Hospital, USA

Session Introduction

Title: Experience of a single center in NTBC use in management of hereditary tyrosinemia type I in Libya

Hanna Alobaidy, El khadra Hospital, Libya

Title: Chronic neutropenia of childhood

Rose Mary S Stocks, University of Tennessee Health Science Center, USA

Title: Risk factors associated with childhood asthma- A case control study

Srijana Dongol Singh, Dhulikhel Hospital, Nepal

Title: Evaluation of voiding dysfunction in patient with urinary tract infection

Banafshe Dormanesh, AJA University of Medical Sciences, Iran

Title: Paroxysmal supraventricular tachycardia (PSVT) in children- Therapeutic approach in urgent Pediatrics

Maria Neamtu, Municipal Hospital, Republic of Moldova

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Hanna Alobaidy, J Pediatr Care, Volume 4
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EXPERIENCE OF A SINGLE CENTER IN NTBC USE IN MANAGEMENT OF HEREDITARY TYROSINEMIA TYPE I IN LIBYA

Hanna Alobaidy
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Background: Hereditary tyrosinemia type I (HTI) is a metabolic disease caused by deficiency of fumarylacetoacetate hydrolase enzyme.

Objectives: This study reports beside its clinical and biochemical presentation, the outcome of NTBC [2- (2-nitro-4-trifloro-methylbenzoyl)-1, 3-cyclohexanedion] treatment of the disease and evaluates its biochemical markers in 16 pediatric Libyan patients.

Patients & Methods: The diagnosis was based on presence of high tyrosine levels in blood and succinylacetone in urine.

Results: The consanguinity rate was 81.2%, the median age at onset, at diagnosis and at starting treatment were 4.5, 8, and 9.5 months respectively. At presentation hepatomegaly, jaundice, rickets and high gamma glutamyl transferase (GGT) were observed in 87.5% of patients. All patients had extremely high alpha fetoprotein (AFP) and high alkaline phosphatase (ALP) levels. Fifteen patients were treated with NTBC, normalization of PT (Prothrombin time) was achieved in average of 14 days. The other biochemical parameters of liver function (transaminases, GGT, ALP, bilirubin and albumin) took longer to improve and several months to be normalized. Survival rate with NTBC was 86.6%. Patients who started treatment in a median of 3 months post onset observed a fast drop of AFP in 90.6% of patients (P=0.003). Abnormal liver function and rickets were the common presentations and GGT was an early cholestatic sensitive test. ALP was constantly high even in asymptomatic patients.

Conclusions: In HT1 a faster dropping of AFP is a marker of good prognosis

Biography

Hanna Alobaidy has completed her MB BCh from Faculty of Medicine, Alexandria University, Egypt in 1980 and Postdoctoral studies in Pediatrics from Karolinska Institute Stockholm Sweden, 1990. She is a Consultant of clinical pediatrics and inborn errors of metabolism. She is currently serving as Consultant Metabolist in outpatient clinic Alkhadra Hospital, Tripoli, Libya. She has committed to a career in Academic Medicine and has over 20 years of experience of undergraduate and postgraduate medical education in University of Tripoli Medical College. She has published papers in national and international peer-reviewed medical journals with over 25 citations. Her top clinical researches are: The 1st study and reference report about the "Pattern of metabolic disorders in Libya, long term experience in tyrosinemia type I with NTBC (17years) and Niemann-Pick C disease follow up".

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CHRONIC NEUTROPENIA OF CHILDHOOD

Rose Mary S Stocks
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Objective: Chronic neutropenia of childhood (CNC) is a rare disorder in which the absolute neutrophil count is below 1500/ L over an extended period of time. The objective of this study is to describe the otolaryngologic manifestations associated with CNC to facilitate diagnosis and treatment of this condition.

Methods & Materials: We performed a retrospective chart review of patients with the diagnosis of CNC between 1970 and 2005 at a tertiary pediatric hematology center. After Institutional Review Board approval, 43 patients were evaluated. The average age at hematologic diagnosis was 49 months (range: 1 month – 15 years with 35% <1 year, 44% 1–10 years, 21% >10 years). A total of 2049 encounters were analyzed from the hospital charts.

Results: Twenty four subjects (56%) presented with recurrent otitis media (ROM), sinusitis or pharyngotonsillitis, while 11% presented with oral mucosal lesions. After diagnosis, otolaryngologic problems persisted, including ROM (81%), viral upper respiratory tract infection (67%), oral ulcers or gingivitis (53%), tonsillitis (39%) and sinusitis (37%) and were more common than other systemic infections. Myringotomy tube placement, endoscopic sinus debridement, adenotonsillectomy or tracheostomy were required in 42% of patients. After G-CSF (granulocyte colony-stimulating factor) became available in the early 1990s, the infection rate markedly decreased. Five deaths occurred (12% mortality) including one due to sepsis from otolaryngologic infection.

Conclusion: The majority of children with CNC had otolaryngologic problems at presentation and these continued after diagnosis. While managing common otolaryngologic infections in children, a high index of suspicion for chronic neutropenia is necessary. An otolaryngologist is frequently one of the first physicians to encounter children with this condition. Awareness of CNC and its management will enhance earlier diagnosis and more effective treatment for these children.

Biography

Rose Mary S Stocks is the Residency Program Director for Otolaryngology, Head & Neck Surgery Department at UTHSC. She is a fellowship trained Pediatric Otolaryngologist with a Doctorate in Pharmacy and a long bench research history. She has conducted numerous NIH-funded research endeavors with an emphasis on ototoxicity and its prevention in the administration of chemotherapy in the guinea pig model. She has participated in, and published her experience in extra-uterine, prenatal surgical repair of defects of the head and neck (the EXIT procedure). She has served as Research Mentor to numerous residents over the years and greatly increased the amount of scholarly activity within the department. She has taught courses at a national level for the American Academy of Otolaryngology, Head and Neck Surgery on Down's Syndrome for the Otolaryngologist and Management of the Difficult Pediatric Airway. She teaches first year medical students about examination of the ear, nose, and throat and is a tireless surgical educator in the training program. She is a Member of the LeBonheur Multidisciplinary Cleft Lip and Palate Team and devotes her expertise to the care of these patients and their families.

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RISK FACTORS ASSOCIATED WITH CHILDHOOD ASTHMA – A CASE CONTROL STUDY

Srijana Dongol Singh and **Shrestha A**
Dhulikhel Hospital, Nepal

Background: Asthma is one of the most common chronic childhood illnesses with rapidly increasing prevalence in low income countries. For planning effective intervention to reverse this condition we need a better understanding of the risk factors for asthma in early life.

Objectives: This study aimed to identify the risk factors associated with childhood asthma and its morbidity patterns.

Methods: The case control study was conducted in the Pediatric Department of Dhulikhel Hospital, Kathmandu University hospital, Dhulikhel from March 2016 to March 2017. The control group was composed of 175 age matched children attending the outpatient clinic with non pulmonary health problem. Data was collected through Performa and analyzed using SPSS version 23. The association of asthma with genetic and environmental risk factors was evaluated by univariant (chi-square or Fisher's exact test) and binomial logistic regression.

Results: Childhood asthma was more common in male children between 1-5 years. Majority of children 77 (44%) were graded as mild persistent asthma. In multivariate analysis the following factors were associated with asthma: family history of asthma (OR0.06; 95%CI .005-0.94, p=0.04), exclusive breast feeding (OR18.42; 95%CI 2.56-132.3, p=0.004), allergic disorder in children (OR0.003; 95%CI 0.000-0.037, p=0.0001).

Conclusion: Family history of asthma, allergic history in the patient and nonexclusive breast feeding were significantly associated with asthma. Proper treatment and follow up with good drug compliance and avoidance of risk factor can significantly reduce the morbidity pattern of asthma in c hildren

Biography

Singh D S is an Associate Professor of Pediatric Department in Kathmandu University Hospital, Dhulikhel, Kavre, Nepal. She has done her Postgraduation in Pediatric Nutrition (Boston University). She has studied her Medicine (MBBS) in University of Science and Technology, Chittagong, Bangladesh. She is MD (Pediatrics), Kathmandhu University, Dhulikhel, Kavre, Nepal. Her research works include: Risk factor of low birth weight babies born in Dhulikhel Hospital; Incidence, risk factor and outcome of birth asphyxia cases born in Dhulikhel Hospital; Outcome of meconium stain liquor babies born in Dhulikhel Hospital; Incidence, clinical profile and antibiotic sensitivity in urinary tract infection in Dhulikhel Hospital; Incidence, clinical profile and antibiotic sensitivity in enteric fever in Dhulikhel Hospital; and clinical profile, radiological resolution and risk factor associated with fatal pneumonia. She has attended conferences on Pediatric Epilepsy in Nationwide Children's Hospital, Columbus, USA; Subspecialty conference of Pediatric organized by Nepal Pediatric Society, workshop on curriculum review on Pediatric Nutrition organized by Child Health Division of Government of Health, curriculum review of MBBS; workshop on Database Management of newborn child. She has done paper presentations in Nepal Pediatric Society Conference on the following topics: Incidence, clinical profile and antibiotic sensitivity in urinary tract infection in Dhulikhel Hospital; Incidence, clinical profile and antibiotic sensitivity in enteric fever in Dhulikhel Hospital; and clinical profile, radiological resolution and risk factor associated with fatal pneumonia.

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EVALUATION OF VOIDING DYSFUNCTION IN CHILDREN WITH URINARY TRACT INFECTION

Banafshe Dormanesh[1], Reza Khorramirouz[1, 2] and **Abdol Mohammad Kajbafzadeh[2]**

[1]AJA University of Medical Sciences, Iran
[2]Tehran University of Medical Sciences, Iran

Background: Urinary tract infection in children may cause parenchymal damage due to voiding dysfunction.

Objective: We aim to establish an urodynamic and uroflowmetry parameters in Iranian children referred for urinary tract infection (UTI) compared with normal findings in similar age group in Iranian population.

Methods: Two hundred and ninety eight voiding parameters were performed between 2000 and 2010 on patients referring with UTI ages between 2 to 15 years. The maximal and average urine flow rate and urine volume were evaluated in uroflowmetry and maximal detrusor pressure in voiding were measured in urodynamic study. Two hundred ninety eight studies from 236 girls and 62 boys were considered in this study.

Results: The maximal and average urine flow rate was measured for both girls and boys. Mean maximum and average urine flow rate was 25.86 and 10.03 (ml/sec) for boys with 28.12 and 11.10 (ml/sec) for girls with a mean voided volume of 198.80 (ml) for boys and 207.79 (ml) for girls. Urine volume showed significant increase with increasing age. Average flow rate showed close association with maximum detrusor pressure, maximum flow and urine volume. The maximum flow rates showed close association with urine volume. The mean maximum flow rates were higher in girls and boys with urinary tract infection compared to normal population and the mean average flow rates were higher in both sexes with UTI compared to normal population.

Conclusion: This study showed the higher maximum, average flow rates, urine volume and detrusor pressure in children with UTI compared to normal population which confirmed higher voiding pressure pattern in affected children

Biography

Banafshe Dormanesh has completed her Medicine in 1993; Pediatric Specialty in 1997 and Pediatric Nephrology subspecialty in 2002 from the Tehran University of Medical Sciences. She is an Associate Professor in Pediatric Nephrology and is the Head of Pediatric Department in Faculty of Medicine. She has published more than 60 papers and book chapters. She is an Associate Editor in AMHSR Journal and Head of the Editorial Board Member (Clinical Sciences and Practice, Family Medicine) in JAMM Journal.

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PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA (PSVT) IN CHILDREN– THERAPEUTIC APPROACH IN URGENT PEDIATRICS

Maria Neamtu
Municipal Hospital, Republic of Moldova

Objectives: The objective of the study is the determination of trigger factors against the background of congenital heart defect; clinical manifestations of PSVT depending on age and effectiveness of treatment depending on age.

Relevance of the topic: PSVT is one of major urgencies in children

Materials & Methods: The study included a group of 22 children and was based on survey and monitoring in dynamics in Emergency Receiving Pediatrics Unit Department, Clinical Hospital Balti in 2014.

Results:

1. Age separation: 1st lot 0-4 years old (8 children – 36.36%),
2. 2nd lot 5-18 years old (14 children – 63.63%)
3. Etiology separation: 1st lot PSVT with acute respiratory infection, pneumonia, congenital heart defect (atrial septal defect (ASD), ventricular septal defect (VSD)) – 36.36% 2nd lot PSVT in intact heart (stress, fear) – 63.63%
4. Clinical manifestation separation: 1st lot – cyanosis, extreme pallor, dyspnea – 36.36% 2nd lot – palpitation, heart pain, pallor, asthenia – 63.63%
5. Treatment separation: 1st lot – attack treatment with Adenosine – 36.36% 2nd lot – attack treatment with Amiodarone – 39.28%, Verapamil – 24.35%

Conclusions: The obtained results conclude that the high frequency of PSVT in children with concomitant diseases against the background of congenital heart defects (ASD, VSD); High effectiveness of attack treatment in 1st lot with adenosine, 2nd lot with amiodarone and verapamil; and in emergency receiving pediatrics unit department it is possible to treat PSVT attack in children.

Biography

Maria Neamțu, is the Head of Paediatrics Department of the Municipal Hospital, Balţi, Republic of Moldova. She is a specialist in Paediatric Cardiology with more than 34 years of experience in the field. Her experience and passion for medical activity is implemented through different activities as: depth knowledge in providing emergency medical care to patients with cardiac pathologies, administration of the children's hospital with a capacity of 135 beds, teaching at the medical college, which is the key moment to provide qualitative emergency assistance to children. Her professional knowledge and skills are also reconfirmed by attending and publishing scientific papers at the cardiology congresses in London, Tel-Aviv, Brussels, Bucharest and Barcelona.

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DAY 2

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Sessions

General Pediatrics | Neonatalogy And Perinatology | Pediatric Genetics | Pediatric Nephrology And Urology

Session Chair
Rose Mary S Stocks
University of Tennessee Health Science Center, USA

Session Co-Chair
Mariana Stuparu Cretu
University Dunarea de Jos of Galati, Romania

Session Introduction

Title: Linkage analysis of autosomal recessive primary microcephaly (MCPH) in Pakistani families

Iram Naz, Xi'an Jiaotong University, China

Title: Aortic runoff as a sign of intracranial arteriovenous malformation

Maryam Moradian, Medical and Research Center- IUMS, Iran

Title: Antibiotic resistances profile in Iran, clinical implication and prospect for antibiotic stewardship

Jafar Soltani, Kurdistan University of Medical Sciences, Iran

Title: The effect of creating opportunities for parent empowerment program on parent's mental health: A systematic review

Shirin Hasanpour, Tabriz University of Medical Sciences, Iran

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LINKAGE ANALYSIS OF AUTOSOMAL RECESSIVE PRIMARY MICROCEPHALY (MCPH) IN PAKISTANI FAMILIES

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The work in this study is done on the inherited disease autosomal recessive primary microcephaly (MCPH). MCPH is characterized by reduction in head circumference (3-4 standard deviations below age and sex average) caused by underdevelopment of the fetal cerebral cortex. This is accompanied with variable degrees of mental retardation. MCPH demonstrate genetic heterogeneity and to date eight loci (MCPH1-MCPH8) and eight genes have been identified. These MCPH genes are involved in important cellular functions mainly related to mitosis of neurons (neurogenesis); cell cycle regulation, organization and orientation of mitotic spindle fibers and centrosomal production of microtubules. In the present work, two families showing primary microcephaly were studied. DNA samples from affected and normal individuals from both families were tested for linkage to known MCPH loci. All known loci were excluded from both families because of absence of linkage and homozygosity. The disease loci on some other cytogenetic location are yet to be discovered.

Biography

Iram Naz has completed her MBBS in 2014 from Xi'an Jiaotong University, China and now is a Master's (Pediatrics) student in Xi'an Jiaotong University.

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AORTIC RUNOFF AS A SIGN OF INTRACRANIAL ARTERIOVENOUS MALFORMATION

Maryam Moradian
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Intracranial arteriovenous malformations rarely cause pulmonary hypertension and congestive heart failure in the newborn. Their diagnosis is, however, challenging because cardiomegaly may suggest an intracardiac structural lesion.

Introduction: Congenital arteriovenous malformations (AVM s) are structural abnormalities resulting from arrest in normal morphogenetic processes leading to absence of normal intervening capillary bed between artery and veins so blood rushes from the artery type vessel to vein type vessel without being slowed down by capillaries, which may give rise to hemodynamic symptoms. The hemodynamic signs and symptoms produced by systemic AVMs are determined by their location (brain, liver, thorax, extremities ...) size, and the patient's age (as hydrops fetalis during fetal life, neonatal congestive heart failure, or beyond infancy as a hyperkinetic circulatory state) Small cranial AVMs may cause no symptom until they rupture causing signs of cerebral or subarachnoid hemorrhage. Other manifestations would be neurological problems such as hydrocephalus, seizure, headache, and numbness in one part of body paralysis or loss of speech, memory or vision. Arteriovenous malformation of the vein of Galen in infancy is a rare cause of neonatal heart failure. Symptoms of high-output congestive heart failure due to unique cardiovascular hemodynamics of neonate (patency of ductus arteriosus and foramen ovale, elevated pulmonary vascular resistance, and relative hypertrophy and diminished compliance of right ventricle) may lead to miss diagnosis of intracardiac defect.

Method: In this case report we introduce two neonates which were referred to our hospital (as tertiary cardiac referral center) due to cardiac failure and were though to suffer from congenital heart defect. In fact cardiac symptoms in these cases were secondary to cranial AVM .Echocardiography helped us to reach the correct diagnosis. Our aims in reporting these two cases are contributing to medical knowledge, clinical practice, precise using diagnostic instruments (echocardiography), disease management, and follow-up. Also we believe on its educational value.

Case description: A two-day-old male and eleven-day-old female newborns with intracranial arteriovenous malformations and misdiagnosis of congenital heart disease are presented here.

Discussion: Infants with severe congestive heart failure caused by an intracranial AVM are critically ill, and prompt diagnosis is essential. Two-dimensional ultrasonography of the heart and brain provides a rapid, efficient method for the detection of intracranial AVMs. Alongside the complex adjustments that occur on conversion to extrauterine circulation, the newborn infant with a large intracranial AVM has an additional circulatory burden. Shortly after birth, when the pulmonary vascular resistances are still elevated, the decrease in the total systemic vascular resistance caused by the presence of a large AVM promotes right-to-left ductal shunting. The large venous return to the right atrium from the AVM augments the right-to-left atrial shunting. An increased blood flow to a low-resistance fistula leads to the dilatation of the ascending aorta and carotid arteries, and an increased venous return from the AVM causes the dilatation of the superior vena cava, right atrium, and right ventricle. Doppler examination of the descending aorta shows evidence of a retrograde diastolic flow

Conclusion: Cranial AVMs cause volume overloading and cyanosis due to a persistent fetal circulation. Most of cranial AVM infants are initially deemed to have congenital heart disease. Careful echocardiography, by demonstrating a normal intracardiac anatomy via two-dimensional mode and the "steal" of blood in the cranial region by pulsed and color Doppler modes, helped us reach the correct diagnosis promptly. It should be emphasized that cranial auscultation, albeit an integral component of physical examination in children, more often than not tends to be ignored.

Biography

Maryam Moradian has completed her Residency in pediatrics, Tehran University of Medical Sciences (Children's Medical Center) and Mashhad University of Medical Sciences. She was the Director of pediatrics echocardiography lab, Rajaie Cardiovascular Medical and Research Center from 2011-2013. She has published more than 14 papers in reputed journals.

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ANTIBIOTIC RESISTANCES PROFILE IN IRAN, CLINICAL IMPLICATION AND PROSPECT FOR ANTIBIOTIC STEWARDSHIP

Jafar Soltani and **Soheila Nahedi**
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Serious bacterial infections that are resistant to commonly available antibiotics have become a major worldwide healthcare problem. They are more severe; require significantly more expensive diagnosis and longer and more sophisticated treatments. According to World Health Organization, post-antibiotic era, in which even mild infections causing serious problems is approaching soon till 2050. Knowledge of the prevalence of antibiotic resistance is a pre-requisite for infection control and essential for public healthcare policy makers to conduct effective responses. Some studies indicate high bacterial resistance rates in developing countries. Nevertheless, it is hard to delineate the extent of the problem, since it changes in various healthcare facilities and geographic regions. These factors increase the importance of establishment of a surveillance system of antibiotic resistance from all hospitals. Based on World Health Organization (WHO) guidelines, antibiotic surveillance should be performed in three levels, i.e. local, intermediate and national. A nationwide surveillance system has not yet been established in Iran. Most data are retrieved from scattered cross-sectional studies and there is no guideline for rational uses of antibiotics especially at local levels. The objectives of this review are to describe antibiotic resistances pattern of common microorganisms which isolated from blood and other sterile body fluid and its clinical implication during recent years in Iran.

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THE EFFECT OF CREATING OPPORTUNITIES FOR PARENT EMPOWERMENT PROGRAM ON PARENT'S MENTAL HEALTH: A SYSTEMATIC REVIEW

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Context: Premature birth and the consequent neonatal intensive care unit (NICU) admission cause great distress for parents, which makes them in need of support when their infant is hospitalized in the NICU.

Objective: The aim of this study was to determine the impact of creating opportunities for parent empowerment (COPE) program on parents' mental health. This review emphasizes on mental disorders' prevention.

Data Sources: This systematic review was performed by searching the databases including Cochrane Library, Pubmed, Scopus, Google Scholar, Proquest, Science Direct, SID, Magiran and Iranmedex databases for interventional papers from 2000 until 2015.

Study Selection: The studies which were considered to enter this review included randomized controlled clinical trials and quasi-experimental studies regarding the impact of COPE program on the mental health of premature infants' parents.

Data Extraction: For eligible studies, two authors extracted the data independently and discrepancies were resolved through discussion or, if required, through consultation with the third author.

Results: Only four studies conducted on the impact of COPE program on parents' mental health were included in this systematic review. According to them, the implementation of COPE program on the parents of premature infants hospitalized in the NICU decreased stress significantly after intervention phases 2 [-1.72 (95% CI: -1.97, -1.47)] and state anxiety after intervention phases 1 [-1.01 (95% CI: -1.48, -0.53)] in mothers.

Conclusion: The studies suggested the positive impacts of COPE programs on parents' mental health; however, more studies are recommended in all aspects of mental health along with further involvement of fathers.

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