Special Session
September 20, 2017

Pediatric Healthcare & Pediatric Infections 2017

10TH AMERICAN PEDIATRICS HEALTHCARE & PEDIATRIC INFECTIOUS DISEASES CONGRESS

September 20-22, 2017 | Park Inn by Radisson Toronto Airport West
Toronto, Canada

Lana Gagin

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Dextrose gel use in treatment of critical hypoglycemia in neonates

Introduction: Transient neonatal hypoglycemia is a common problem affecting many newborns. Up to 15% of healthy newborns and up to 50% of babies in at risk groups are affected. Independent risk factors for hypoglycemia include prematurity, high or low for gestational age birth weight as well as infants born to mothers with diabetes. Correcting critically low blood glucose concentration is important to avoid more serious complications and adverse outcomes. Critical hypoglycemia can put newborns at risk for potentially life threatening consequences including seizures, brain damage, coma and death. Traditional approach in management of neonatal hypoglycemia included intense feeding interventions as well as close blood glucose monitoring. Intravenous dextrose was reserved to babies in whom the initial conservative approach failed. Despite varying protocols, many babies still struggle with low blood glucose and require more frequent monitoring which causes more lab draws, disruption of bonding between a mother and a baby, interruption of breastfeeding, and may need to transfer to a neonatal intensive care unit (NICU). More recently, oral dextrose gel use has been shown to be beneficial as an adjunct therapy in management of neonatal hypoglycemia. This study explores the effect of oral dextrose gel on correcting critically low blood glucose levels in neonates.

Methods: Dextrose gel has been incorporated into a well-established hypoglycemia protocol which was based on the American Academy of Pediatrics guidelines. 40% dextrose gel was administered in addition to standard interventions with intense feeding when indicated. The trial has been initiated in March of 2016. Subjects included were all newborns that met criteria of small for gestational age (SGA), large for gestational age (LGA), infants of diabetic mothers (IDM), and preterm (<37 weeks) who are born within that time frame. Patients were divided into two groups based upon their admission date. Those admitted prior to oral dextrose gel trial and those admitted up to six months following oral dextrose trial. Data was collected from a retrospective chart review include blood glucose concentration, comorbid conditions, number of oral dextrose gel doses administered, need for transfer to NICU for treatment with an intravenous glucose and length of stay in NICU.

Results: Primary outcome variables for this study are the need to transfer to NICU due to critical hypoglycemia and a length of stay in NICU. Critically low blood glucose concentration in the first 4 hours of age is defined as less than 25 mg/dl. There was a 12% reduction in need for NICU transfers for intravenous glucose treatment due to critical hypoglycemia in infants treated with oral dextrose gel vs. infants who received intense feeding intervention only (38% vs 50%). Moreover, there was a 27% reduction in length of hospital stay in infants who was transferred to NICU due to hypoglycemia after an initial trial of dextrose gel. The beneficial effect of oral dextrose gel in correcting critical hypoglycemia was observed across all four risk factors for hypoglycemia.

Conclusion: 40% oral dextrose gel is an effective treatment in correcting critically low blood glucose concentration in newborn babies with risk factors. It is simple, inexpensive and safe intervention. It has been shown to be superior to intense feeding intervention alone in treating critical hypoglycemia, and an effective tool in decreasing the need for treatment with an intravenous glucose. Oral dextrose use shortens duration of hospital stay due to hypoglycemia.

Speaker Biography

Lana Gagin attended Bashkirian State University Medical School. She completed her Pediatric Residency at the Michigan State University's College of Human Medicine GRMEP in 2007. She earned her Master's degree in Public Health at the University of Michigan in 2010 while also working as a pediatrician in the Outpatient General Pediatric Clinic. She joined the staff of the Helen DeVos Children's Hospital's Academic General Pediatrics in 2010. In 2011, she joined the staff of Spectrum Health Medical Group and became a Medical Director of Newborn Services in Grand Rapids Campus. As a Medical Director she led the team of physicians in establishing new practices for breastfeeding support which resulted in a successful Baby-Friendly Hospital designation in 2014. She serves as a core faculty at the Pediatric Residency Program at Spectrum Health. She is a co-founder and a Director of Quality Improvement and Patient Safety Rotation, and has been leading multiple quality improvement initiatives. She completed her Lean Healthcare Certification at the University of Michigan in 2014. In 2015, she became an International Board Certified Lactation Consultant.

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Nocturnal enuresis among Sudanese children with sickle cell disease

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Background: Nocturnal enuresis (NE) is prevalent in patients with sickle cell disease. This have been attributed to a decreased ability to concentrate urine caused by sickling-induced nephropathy (hyposthenuria).Whether this is true in Sudanese children with sickle cell anemia is unknown.

Objective: To determine the frequency of NE in Sudanese children with sickle cell anemia and to see if hyposthenuria is the cause of NE in these patients.

Method: A hospital based cross sectional descriptive study of 87 children with sickle cell anemia who met the study criteria and age sex matched 53 children with sickle cell trait and 50 children with normal hemoglobin genotype as control was conducted in the outpatient's clinic of a major pediatric hospital in Khartoum. A questionnaire was used to collect relevant data; urine specific gravity was measured using urine dipsticks.

Results: NE is present in38%, 13% and 12% of children with sickle cell anemia, sickle cell trait and the control respectively. Hyposthenuria was not detected in children with or without enuresis.NE is common in siblings of enuretic children but not their parents.

Conclusion: NE is frequent in Sudanese children with homozygous sickle cell disease. The frequency is not increased in children with sickle cell trait. Hyposthenuria is not detected in these children. Familial tendency for NE is observed.

Speaker Biography

Fathelrahman E Ahmed has completed his MBBS from Khartoum University and has received Membership of the Royal College of Phyicians from the Royal College of Phyicians-London. He has published more than 25 papers and has been serving as an Editorial Board Member of two journal at his country and he is a Reviewer for four journals.

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Calloso-septo-optic dysplasia-plus (De Morsier's syndrome) with aqueductal stenosis and posterior cervical myelomeningocoele: Magnetic resonance imaging: A case report/series of De Morsier's syndrome

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Introduction: Septo-optic dysplasia (SOD) or De Morsier's syndrome is diagnosed when optic nerve hypoplasia is seen in conjunction with dysgenesis of the septum pellucidum. Its diagnosis is mainly neuroradiologic with an incidence of 1:50,000. This paper presents four cases of SOD diagnosed via magnetic resonance imaging in less than a year in our institution. The cases represent the classic SOD as well as an unusual blend of the neuroradiologic features of the different SOD subsets with unique associations (aqueductal stenosis and posterior cervical myelomeningocoele).

Case Presentation: 1) An 18-month Filipino female with seizure, developmental delay and hydrocephalus revealed an absent septum pellucidum and corpus callosum, small optic nerves, dilated ventricles, aqueductal stenosis, grey matter heterotopia and a posterior cervical myelomeningocoele; 2) A 15-year old male with recurrent seizure showed dysplastic optic nerves, dilated ventricles with box-shaped frontal horns, absent septum pellucidum and a thinned-out corpus callosum; 3) A 17-month old male with blurred vision demonstrated cerebral atrophy, open-lip schizencephaly, absent septum pellucidum with dilated ventricles and atrophic optic nerves; 4) A three-week old male with seizures since birth showed absent septum pellucidum with box-like appearance of the frontal horns of the lateral ventricles.

Conclusion: Coincidence of seizures, developmental delay, calloso-septo-optic-dysplasia plus, aqueductal stenosis, hydrocephalus and cervical myelomeningocoele is a unique constellation of the neuroradiologic features of the different subsets of SOD with indefinite prognosis. Patients with classic SOD or calloso-septo-optic dysplasia plus with rare associations should both be closely followed up for re-assessment, further evaluation and management of neurologic and non-neurologic deficits.

Speaker Biography

Joy A David has completed her Doctor of Medicine from the University of Santo Tomas, Philippines. She has worked in the field of Public and Community Health for nine years before she entered Residency Training in Radiology. She is in her second year of training at Bicol Medical Center (BMC) Naga City, Camarines Sur, Philippines and is currently the Chief Resident of the BMC Department of Radiology. She has presented her case paper in both local and international gathering/congress. She is also a Certified Women and Child Protection Specialist.

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Dandy-Walker malformation: A case report on the importance of neuroimaging in diagnosis of the disorder

Neha Bista, Collao M and **Ghimire P**
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Dandy-Walker malformation is a rare intracranial congenital abnormality of the brain occurring in about 1 in 35000 live births. It is characterized by a classical neuropathological triad consisting of complete or partial agenesis of the cerebellar vermis, cystic dilatation of the fourth ventricle and enlargement of the posterior fossa. Treatment involves seizure control, ventriculo-peritoneal/cystoperitoneal shunting and psycho-social therapy. Although there is an extensive list of signs and symptoms associated with the disorder, final diagnosis is dependent on imaging techniques. Timely neuroimaging helps to diagnose the condition and the associated anomalies as early as possible. It also helps to evaluate the recurrence risk in subsequent pregnancies with timely diagnosis of the present disorder. A male child of age two years was brought to our institution for chronic seizure disorder since seven months of age in the out-patient department. He began to have progressive increase in head circumference since one year of age, limited cognition and motor skills for his age and had repeated hospital admissions for convulsions. Cranial CT scan with contrast and plain cranial MRI both revealed moderate hydrocephalus with cystic enlargement of the fourth ventricle communicating into a large cystically dilated posterior fossa, absent cerebellar vermis and absent septum pellucidum along with hypoplastic cerebellum and polymicrogyria. A diagnosis of Dandy-Walker malformation was made, and treatment was advised accordingly, including anticonvulsants and need of ventriculo-peritoneal shunting, to which the family consented to on a lateral date, after out-patient follow up. In the absence of any antenatal and postnatal neuroimaging modality, the case was being managed in line of hydrocephalus with chronic seizure disorder. With the availability of cranial CT scan study, a definite diagnosis of Dandy-Walker malformation could be made and further management could be planned.

Speaker Biography

Bista N has completed her MBBS at the age of 26 years from Manipal College of Medical Sciences, Kathmandu University, Nepal on Novermber 2015. She is currently pursuing her residency training in radiology at the Bicol Medical Center, Naga City, Philippines. She is to share her interesting cases and looks forward to being actively involved in publication and further enhancing her academics and training.

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Understanding HIV-positive experiences with antenatal care in Mozambique

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Antenatal care plays a critical role in the health of pregnant women. We carried out a qualitative research to analyse women's compliance to biomedical norms recommended to reduce the risk of mother-to-child transmission of HIV during pregnancy and childbirth in the rural province of Maputo. The study consisted of in-depth interviews and focus group discussions with women who had become mothers, in-depth interviews with community health workers and semi-structured interviews with mother and child health nurses. We used Bourdieu's theory of practice as a guiding framework to analyse the data. Our findings showed that participants complied with some recommended biomedical norms to reduce the risk of mother-to-child transmission of HIV, such as subsequent antenatal visits, adherence to antiretroviral therapy and childbirth at the health facility. However, they did not comply with the timing of the first antenatal care, use of modern health care system to treat illness episodes and use of condom during pregnancy. The study results suggest, that compliance to the recommended prevention of mother-to-child transmission is the result of complex interactions in which participants rely on knowledge and resources within both the family and community and the modern health care system. Awareness among health care workers of pregnant women's perspectives as well as an adequate education about the timing of the first antenatal care and the benefits of antenatal care in both the health facility and community could thus enable to improve prevention of mother-to-child transmission of HIV.

Speaker Biography

Carlos Eduardo Cuinhane is a PhD Student at Vrije Universiteit Brussel, Belgium. He is a Member of Research Centre Gender, Diversity and Intersectionality (RHEA), Brussels. He is a Sociologist and Anthropologist. He is a Lecturer and Researcher at Eduardo Mondlane University, Mozambique

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A rare entity with a rarer presentation: A case report on Dyke-Davidoff Masson syndrome presenting with status epilepticus

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Dyke-Davidoff-Masson syndrome (DDMS) was described initially by C G Dyke, L M Davidoff and C B Masson in 1933. It results from an insult to the growing brain in utero or early infancy, leading to loss of neurons, compromising the growth of the brain. Diagnosis is established with clinical and neuroimaging data. Patients may require physiotherapy, speech and occupational therapy in addition to the management of the seizures. Awareness among the pediatrician, the radiologist and the team leads to early recognition, appropriate timely management and hence, better long-term prognosis. A nine years old female born prematurely, presented thrice in her lifetime as a case of status epilepticus due to improper and inadequate use of prescribed medications. She had delayed mental development for her age. Upon contrast, CT evaluation, hemiatrophy of the right cerebral hemisphere with compensatory ex-vacuo ventriculomegaly and midline shift towards the right, ipsilateral thickening of the calvarium, decrease in size of the ipsilateral cranial fossa, unilateral overdevelopment of the frontal sinus and overaerated right petrous were noted. Capillary malformation was seen as spoke-wheel appearance of the capillaries in the right basal ganglia, a novel finding in children with DDMS. She was diagnosed as a case of DDMS and was managed with IV and oral anticonvulsants and advised for the behavioral therapy to follow on out-patient basis. Neurosurgical consultation was also advised in case of intractable seizures for possible hemispherectomy, which has a success rate of 85% in selected cases. DDMS is a rare clinical entity and furthermore, status epilepticus is an unusual presenting complaint. The physicians must be aware of this relatively uncommon clinical presentation of status epilepticus in order for a timely and appropriate management and also for the outcome of a better long-term prognosis.

Speaker Biography

Ghimire Pradesh has completed his MBBS from Manipal College of Medical Sciences affiliated to Kathmandu University, Nepal. He is a third year Radiology Resident in Bicol Medical Center affliliated to Bicol University, Philippines.

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A new method for preventing the iatrogenic rupture of fetal membrane and amniotic fluid disposal in fetal surgery and a new amniotic catheter model for its implementation

Mikhail Schneiderman, Kostyukov K, Fatkhudinov T, Shmakov R and **Sukhikh G**
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Complications of fetoscopic surgery for feto-fetal transfusion syndrome reverse arterial transfusion syndrome, diaphragmatic hernia, urethral valve, spinal cord hernia, and sacral coccygeal teratoma may include iatrogenic rupture of fetal membranes followed by miscarriage or pre-term birth and fetal death in 5% to 30%. This limits the clinical application of fetal surgery and requires the development of new methods of sealing the defects of membranes. This is the main objective of this study. The membranes are sealed using a new model of the amniotic catheter, which is made from a flexible elastic material and contains several channels from the proximal end, two of which are designed to release a sealant. To seal the trocar holes in membranes, we introduce the tissue sealant through the canal in the catheter, and slowly withdrawing the catheter, we gradually add the sealant through the main canal in the distal catheter. The sealant cumulates in the puncture channel and around it, completely closing the trocar hole. The platelet reach plasma-sealant, created in Research Center of Obstetrics, Gynecology and Perinatology in Moscow is used as a tissue sealant. This sealant is characterized by high adhesive ability and elasticity, having full biocompatibility with the tissues of the female body, possessing the convenience of use, allowing significantly reduction in the perioperative blood loss, reduces allogeneic transfusions and achieves the reliable sealing of the bladder. The new method of hermetic sealing of the bladder with an amniotic catheter was initially used on isolated amniotic membranes (38 experiments) and then on uterus of non-pregnant rats (32 experiments) with hermetic sealing of trocar holes in uterine horns and in the anterior abdominal wall followed by histological examination of the containment zones. The results allow us to suggest the reliable sealing of trocar holes with an extensive network of new blood vessels growing through the sealing zone. In future, we plan to use the new model of fetal amniotic catheter during the fetoscopic surgery. The application of the new method of hermetic sealing of membranes, based on the use of the new model of an amniotic catheter allows to reduce the risk of miscarriage and preterm birth and provides the possibility to conduct fetoscopy at earlier terms of pregnancy, increasing fetal survival in various pathologies requiring the use of fetal surgery.

Speaker Biography

Schneiderman M is working as a Professor of Medicine. He received his Bachelor's degree from the Medical University of Orenburg in 1965. After obtaining PhD degree from the Medical University of Moscow in 1967, he worked as an Assistant Professor in Medical University of Moscow, and from 1972 he worked as Gynecological Surgeon at Moscow Gynecological Hospital No.5. In 1979 he became the Director of the Gynecological Clinic at Old Arbat Street in Moscow. Between 1997-1982, he also consulted as an Assistant Professor in the clinic of Dr. Rokhlin in San Francisco (USA). In 2013, he joined Academician V I Kulakov Research Center of Obstetrics, Gynecology and Perinatology Ministry of Healthcare of Russia (Moscow) as a Professor. He has received various awards in the field of infertility treatment, new methods of surgical treatment of gynecological diseases, in obstetrics.

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A case report on a rare case of basilar impression caused by tuberculous infection

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Basilar impression is a congenital or acquired cranio-cervical junction abnormality where the tip of the odontoid process projects above the foramen magnum, seen as upward displacement of the dens due to softening of the bones at the skull base. The resultant foramen magnum stenosis and compression of the medulla oblongata or spinal cord can cause neurological symptoms, obstructive hydrocephalus, syringomyelia or even death. It may be acquired due to rheumatoid arthritis, Paget's disease, hyperparathyroidism and rickets. To the best of our knowledge, cases of tuberculosis causing basilar impression are regarded rare. This case highlights the importance of ruling in of tuberculosis in endemic areas, especially in young patients with a chronic history of neck pain and features of tuberculosis. A 17 years old female presented with progressively increasing right neck mass with fistula since a year and worsening neck pain since four months. It was associated with restriction of neck movements, low grade fever, anorexia and weight loss followed by gradually progressive right sided hemiparesis since three months before presentation. Neurological examination revealed right sided hemiparesis without cranial nerve palsy. Contrast CT scan of the cranium and cervical spine revealed osteolytic lesions of the C1 and C2 bodies and clivus, vertical displacement of dens above the foramen magnum with resultant mass effect at the cervicomedullary junction, perivertebral and epidural abscess at C1-C5 with consequent spinal cord compression and cervical lymphadenopathy. There was evidence of basilar impression; the dens appearing 1 cm above the Chamberlain line. A diagnosis of craniovertebral junction for Pott's disease was made. The patient started antitubercular treatment. She showed significant improvement in her neurological deficit during follow-up. As a rare case of craniovertebral junction Pott's disease causing basilar impression, the timely suspicion and subsequent management with antitubercular treatment played a vital role in preventing further morbidity and mortality.

Speaker Biography

Bista N has completed her MBBS at the age of 26 years from Manipal College of Medical Sciences, Kathmandu University, Nepal on Novermber 2015. She is currently pursuing her residency training in radiology at the Bicol Medical Center, Naga City, Philippines. She is to share her interesting cases and looks forward to being actively involved in publication and further enhancing her academics and training.

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Anti-rotavirus activity of rhubarb extract and emodin *in vitro*

Yang Zhan-qiu, He Feng-lan, Liu Qiang, Wei Fei, Liu Yuan-yuan and **Xiong Hai-rong**
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The aim of this study was to evaluate the antiviral activity of rhubarb extract and emodin on rotavirus R709 strain *in vitro*. The titer and viral inhibition rate was evaluated for the antiviral activity of rhubarb extract and emodin in MA-104 cells infected with rotavirus(RV)R709 strain. Meanwhile, we carried out experiments through the three ways of preventive effect, virucidal effect, and antiviral biosynthesis effect against RV. The extracts from rhubarb showed significant inhibitory activity against rotavirus on MA-104 cells in a dose dependent manner when added at different stages of viral replication cycles. When added before, during or after viral infection, the 50% inhibitory concentration (IC_{50}) was 101.08±1.57μgmL^{-1}, 111.27±4.94μgmL^{-1} and 46.88±3.5μgmL^{-1} respectively. The therapeutic index (TI) of rhubarb extract was 3.13±0.13, 3.45±0.06 and 7.45±0.56 respectively. Rhubarb extract was highly active against rotavirus *in vitro*. However, emodin showed mild antiviral activity.

Speaker Biography

Yang Zhan-qiu has completed his MD from Wuhan University School of Medicine. He is the Director of Institute of Medical Virology, Wuhan University. He has published more than 150 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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Emergence of multidrug resistance enterobecter sepsis in a neonatal tertiary care setting: A three year study

Zareen Fasih, Farhana Zafar and **Daya Bai**
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Objective: To study risk factors for Enterobecter sepsis and sensitivity pattern of the organism.

Method: Prospective hospital based study, conducted at tertiary neonatal intensive care unit of Ziauddin University Hospital from January 2011 to December 2014. Blood specimens for culture from 2166 babies were sent. Repeat cultures done when the neonate did not show improvement or deteriorated on first line antibiotics. Risk factors were looked for. Antibiotic resistance of the isolate was studied by the disk diffusion technique.

Results: There were 540 (24.93%) cases of culture proven sepsis. Enterobecter was grown in 84 (15.55%) cases. Among the gram negative organism Enterobecter was the commonest organism n= 84(15.5%) followed by pseudomonas n= 54 (10%). Among the gram positive organism, Staph Lugdunensis seen in 150 (27.77%) cases followed by staph aureus n= 54 (10%). Increase incidence of late onset sepsis (4.6/1000 live births) was observed during this period. Univariate analysis of risk factors revealed a significant association between LBW 54 (P value 0.001), prematurity 78 (P value 0.001) and prolong stay 66 (P value 0.001) and Enterobecter sepsis. Resistance to the first line antibiotics (Cefotaxime sodium, Aminoglycoside) was seen in 72% of cases.

Conclusion: Prolonged stay in the nursery due to prematurity/LBW is important risk factors of Enterobecter sepsis. Prolonged use of antibiotics results in emergence of multidrug resistance. Further studies are needed to establish the role of antibiotics in the emergence of multidrug resistant microorganism.

Speaker Biography

Zareen Fasih completed her MBBS from Karachi University. She achieved her MRCP from Royal College of Ireland and was secretary general of Pakistan Pediatric Association from 2010-2012. She is the Chairperson of Neonatology. She is presently working as Professor and consultant Neonatologist at Gulf Medical University, UAE. She has an experience in metabolic and critical congenital cardiac diseases screening at GMC hospital. She is on the Editorial Board of JppA

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Application of multilevel mediation model to nursing study

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Multilevel mediation model has been increasingly applied in many fields, such as prevention, organizational, education studies and health studies. This study will discuss three widely used multilevel medication models (i.e., 1-1-1, 2-1-1, and 2-2-1 models). This study will demonstrate application of the popular 2-1-1 model in nursing study. Data are simulated with three variables: nurse's job satisfaction (level-1 variable M_{ij}), nurse's intention to leave (level-1 outcome Y_{ij}), and hospital work environment (level-2 variable X_j), where the sub-script i represents level-1 (individual) unit and sub-script j represents level-2 (hospital) unit. The hypothesis is that, the effect of the work environment (X_j) on nurse's intention to leave (Y_{ij}) is mediated by nurse's job satisfaction (M_{ij}). However, the level-1 variable Mij could serve as a mediator for both level-1 and level-2. The study will show how to examine within-cluster, indirect effect, as well as between-cluster indirect effect that is above and beyond the within-cluster indirect effect. In addition, how to control for covariates or confounding factors in the model using residualized score will be discussed.

Speaker Biography

Jichuan Wang has completed his PhD from Cornell University and Post-doctoral studies from the Population Studies Center, University of Michigan. He is a Senior Biostatistician at Children's Research Institute, CNHS. He has published three statistical books and authored/co-authored more than 100 peer-reviewed journal articles. He has been serving as Editorial Board Member of five academic journals.

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Patient safety and risk management in pediatric surgery: Combining aviation safety standards with fast track pediatric surgery

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The increase in our patients` safety, the implementation of an effective risk management, the communication of medical errors and the start up of a fast track pediatric surgery are currently the key issues discussed within the public, among politicians and within pediatric medicine. In the past, first statements are found i.e. in the WHO safety checklists, the global initiative for emergency and essential surgical care (GIEESC) and in the millenium development goals (MDG) out of the years 2008 and 2015. In addition, in I° World countries like Germany, professional risk managers, patient safety experts and medical chambers have issued general guidelines and recommendations for institutional and clinical risk management in all hospital departments. For traditional reasons they focus more on adults rather than on children and of course, more on public health issues than on (pediatric) surgery. In this communication, well established patient safety and risk management goals and the current practice of communicating medical errors are re-focused. Recent proposals for their adaptation into the specific needs in pediatric surgery especially fast track pediatric surgery are re-visited as well. Finally, our results are presented and discussed to which extent safety tools and the safety culture out of the aviation sector or other high reliability organizations (HRO) can be implemented and combined within a progressive fast track pediatric surgery. The data are taken out of the all-day practice and experience of the author and are discussed in form of a literature review.

Speaker Biography

Fette Andreas is a Consultant Pediatric Surgeon. He has just completed university studies in "risk management and patient safety" at the Alpe-Adria University in Klagenfurt/Austria. He has published more than 80 original papers, contributed to 18 book chapters and has been serving as an Editorial Board Member of repute.

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Acute traumatic blow in fracture of orbital roof with transorbital encephalocele: A rare case report

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Traumatic encephalocele following orbital roof blow in fracture is a rare complication of blunt injury. Less than 20 such cases have been published till date. The term "blow-in" fracture was initially coined by Dingman in 1964 describing a specific fracture of the orbital floor and is now used to describe a fracture of any orbital wall where the fragments are intraorbitally displaced, as seen in our case. Clinical suspicion, early neuroimaging and neurosurgical intervention play a vital role to decrease both the intraorbital and intracranial pressures and dreadful complications including death, especially in pediatric population. We present a case of a three years old female who sustained blunt head trauma owing to vehicular accident. Due to the incident occurring at a remote setting, the patient was brought to our institution after three hours. Upon examination, the patient had a GCS of 9, laceration in the right occipital area and proptosis, chemosis and periorbital ecchimosis of the right side. Plain cranial CT study revealed intra-parenchymal hemorrhage of the left frontal lobe with subarachnoid and intra-ventricular extension with surrounding diffuse cerebral edema and rightward midline shift. A comminuted fracture of the right medial and lateral orbital walls with displaced retrobulbar bone fragments and partial herniation of the adjacent frontal lobe displacing the intact right globe anterolaterally was seen, with entrapment of the medial rectus muscle and intact but stretched optic nerve. Even with the full neurosurgical, radiological and pediatric team approaches, the patient deteriorated and couldn't be revived. A prompt emergency ambulance service, timely clinical suspicion and pediatric neuroimaging for detection of the encephalocele and neurosurgical intervention have utmost importance in such "ticking time bomb" cases. Traumatic blow in fracture with encephalocele, a rare clinical entity, if caught early, can still be managed as shown in the literatures with early tertiary care intervention.

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A new exclusive innovation model of obstetrical pessary by Doctor Schneiderman for prevention and treatment of cervical insufficiency and habitual abortion

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The study of a variety of pessaries is available in the market, but they reveal a number of faults in their construction and possible complications from their use. Cervical insufficiency is one of the most common causes of preterm labor. The new exclusive innovation model of obstetrical pessary designed by the authors is made of high quality silicone of determined flexibility and density, providing the optimal application of the pessary. The outstanding feature of the ring is, availability of four symmetrical semi-circular slots on the external surface of the ring, four bulges on the internal surface of the ring and exclusive four vertical silicon "lobes" at the lower surface of pessaries, not allowing shifting or turning to a wrong position. Absolutely new and significant advantage of the new model is its antimicrobial coating (miramistin, chlorhexidine, silver) preventing development of bacterial vaginosis which may impede the use of the pessary. Application of this pessary is simple and painless. Research of the new model of obstetrical pessary was conducted on a group of pregnant women (420 patients) with cervical insufficiency or history of habitual abortion and with pregnancy of 14 to 37 weeks of gestation. All pregnancies were saved. The advantages of the new model of the obstetrical pessary are as follows: 1. Adjunctive fixation of the pessary in the vagina due to the external slots (so the pessary would not move or drop out). 2. High comfort and ease of usage of the pessary during its insertion into the vagina. 3. Reduced risk of lacerations and ulcers of the vaginal mucosa due to minimal pessary contact with the vaginal wall. 4. Increase in outflow of the vaginal discharge. 5. Prevention of infections like vaginitis due to antimicrobial coating of the pessary. 6. Allergy–free. 7. Easy and painless removal of the pessary. 8. Presence of four bulges on the internal surface of the ring preventing cervical dilatation in case of cervical insufficiency during pregnancy. 9. Elimination of symptoms of stress urinary incontinence. 10. Presence of four vertical silicon "lobes" at the lower surface of pessaries, which are not allowing it to shift or turn to a wrong position. Application of the new exclusive innovation model of obstetrical pessary by Doctor Schneiderman considerably increases the chances of successful development of pregnancy in women with cervical insufficiency and habitual abortion. The optimal timing for use of obstetrical pessary is from the 17th week of pregnancy to the 37th week of pregnancy with the subsequent removal of the pessary.

Speaker Biography

Schneiderman M is working as a Professor of Medicine. He received his Bachelor's degree from the Medical University of Orenburg in 1965. After obtaining PhD degree from the Medical University of Moscow in 1967, he worked as an Assistant Professor in Medical University of Moscow, and from 1972 he worked as Gynecological Surgeon at Moscow Gynecological Hospital No.5. In 1979 he became the Director of the Gynecological Clinic at Old Arbat Street in Moscow. Between 1997-1982, he also consulted as an Assistant Professor in the clinic of Dr. Rokhlin in San Francisco (USA). In 2013, he joined Academician V I Kulakov Research Center of Obstetrics, Gynecology and Perinatology Ministry of Healthcare of Russia (Moscow) as a Professor. He has received various awards in the field of infertility treatment, new methods of surgical treatment of gynecological diseases, in obstetrics.

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Syndromatic osteosarcoma, does it carry a poor prognosis? King Hussein Cancer Center experience

Abdulqader Al Habshi, Iyad Sultan, Mohammad Al Bohaisi and **Taleb Ismael**
King Hussein Cancer Center, Jordan

Introduction: Association of osteosarcoma with certain syndromes is well known, but the incidence varies from one report to another, and from one syndrome to another, Ruthmond syndrome is the most common syndrome reported to be associated while others like blackfan diamond anemia and osteogenesis imperfect are very rarely associated, and others like osteopoikelosis are never reported to be associated with Osteosarcoma.

Purpose: Our aim from this review is to report our experience and frequency of association of osteosarcoma with syndromatic features, and to try to see if these syndromes have effects in the prognosis of osteosarcoma.

Methods: Retrospectively we reviewed files of all patients diagnosed with osteosarcoma during the period from January 2003 till December 2011, information regarding presence of syndromatic features, current condition of the patient whether alive or dead or lost and whether had localized or metastatic disease at diagnosis were recorded.

Results: During the study period, a total of 69 patients were diagnosed to have osteosarcoma, six of them were having syndromes; two were having Ruthmond syndrome, one blackfan diamond anemia, one cockyne syndrome, one osteogenesis imperficta and one osteopoikelosis, constituting 8.7% of all cases. From the 63 non-syndromatic patients 41 (65%) were having localized disease, 22 (35%) were metastatic, and from the six syndromatic patients 2 (33.3%) were localized and 4 (66.6%) were metastatic at diagnosis. Regarding prognosis, from the non-syndromatic patients 14 were lost for follow up, from the reminder 49 patients, 34 (69.3%) were alive and 15 (30.6%) dead, from the syndromatic patients, one lost for follow up, one alive only (20%) and four died (80%).

Conclusions: Syndromatic features present in 8.7% of our osteosarcoma patients. Number is small but gives some evidence about the bad prognosis of osteosarcoma when associated with syndromes. Further studies needed in this field.

Speaker Biography

Abdulqader Al-Hebshi has completed his Jordanian and Arab Board in General Pediatrics in 2010 then he did a Clinical Fellowship in Pediatric Hematology Oncology for three years from King Hussein Cancer Centre in Jordan. After that he joined The Hospital For Sick Children in Toronto for another Clinical Fellowship in Pediatric Hematology and Oncology for the duration of 2014-2015. Currently, he is working as a Consultant of Hematology and Oncology and the Clinical Supervisor of Medical Student and Medical Interns at Prince Mohammed Bin Abdul Aziz Hospital-National Guard Health Affairs in Saudia Arabia. He is an active Member in ASPHO American Society of Hematology and Oncology.

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Normal development of voice in children: Advances in the evidence-based standard

Mette Pedersen
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The child voice in trained (voice conscious) boys and girls was investigated with phonetograms (voice range profiles) and fundamental frequency (F0) in running speech while reading a standard text. The methods were based on: (1) developmement and evaluation of the function of phonetograph 8301 made by the firm Voice profile, and (2) combined electroglottographic and stroboscopic examination of the movements of the vocal folds in speech. The voice analysis was compared with measurements of: (1) pubertal stages in youngsters and (2) hormonal analysis of all androgens and in girls, also estrogens. The phonetograms (voice range profiles) measured total pitch and loudness range and an area calculation was made of measured semitones×dB (A). The electroglottographic single cycles were stable and 2,000 consecutive electroglottographic cycles were measured in 48 boys and 47 girls, aged 8-19 years, to measure fundamental frequency in a reading situation. Individual and average phonetograms (voice range profiles) for sopranos, altos, tenors and bassos were examined. Statistical analysis was made with BMDP on the partly stratified cohort, partly prospective studies. The yearly change of voice range profiles showed a correlation to total serum testosterone of r=0.72 in boys, and serum estrone of r=0.47 in the girls. Single observations of the fundamental frequencies showed that total serum testosterone over 10 nmol l-1 serum represented values for a boy with a pubertal voice. The voice parameters were analyzed in 47 girls. F0 was related to estrone r=-0.34 ($p<0.05$) only. The increase of estrone and of fundamental frequency range (F0 range) had a predictive value ($p<0.05$) for the fall of F=from 256 to 241 Hz in puberty.

Speaker Biography

Mette Pedersen defended her PhD in Oulu University (Finland) based on her research at Gentofte Hospital, Denmark in 1997. Currently, she is working as an ENT Specialist at The Medical Centre, Voice Unit, Østergade 18, Copenhagen. She has by invitation, been Member of the European Union of Phoniatricians since 1976 and from 2011 been Honorary Member of Pacific Voice and Speech Foundation.

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September 21, 2017

Pediatric Healthcare & Pediatric Infections 2017

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Can dietary Omega 3 fatty acids reduce asthma symptoms in children? Preliminary results of a randomized controlled trial

Maria Michelle Papamichael[1], Charis Katsardis[2], Dimitris Tsoukalas[3], Bircan Erbas[1] and **Catherine Itsiopoulos[1]**

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There is a general consensus that the global allergy epidemic in children is attributed to a changing environment including lifestyle and diet that is high in omega 6 fatty acids and low in omega 3 fatty acids. It has been postulated that omega 3 fatty acids may modulate the development of IgE mediated allergic disease and regulate immune responses. This is the first clinical trial to investigate fatty fish (in the context of the Greek Mediterranean diet) as an adjunct therapy for paediatric asthma. Children aged 5-12 years with doctor-diagnosed 'mild asthma' were recruited from a paediatric asthma clinic in Athens, Greece and randomized into two groups. The intervention group is instructed to consume two serves of fatty fish per week (at least 150 g cooked fish/serve) for six months and the control group, their usual diet. Questionnaires were used to collect information on medical, dietary, socio-demographic, asthma control and quality of life. Spirometry (FEV1) and exhaled nitric oxide (eNO) analysis were used to evaluate pulmonary function. Adherence to the Mediterranean dietary pattern was assessed using the KIDMED score. Seventy-two children (54.2% boys, 45.8% girls) were successfully recruited. At baseline, 56.94% are 'normal' weight, 27.78% 'overweight' and 11.11% 'obese' according to the Hellenic Paediatric Growth Charts. In conclusion, children suffering with asthma might be at higher risk of becoming overweight and this in turn may affect asthma symptoms. Clinicians should recommend the importance of healthy eating in the prevention and management of overweight issues in paediatric asthma.

Speaker Biography

Maria Michelle Papamichael is a Registered Dietician who has dedicated her life in educating people about the importance of good nutrition and exercise in the prevention and management of disease as well as in improving health and well-being. Being an asthma sufferer since childhood has motivated her to undertake a PhD Research Project at La Trobe University to investigate the prophylactic potential of a Mediterranean diet enriched with fatty fish in the management of asthma in children.

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