Abstracts

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ORAL PRESENTATIONS

Gastroenterology, Nutrition & Metabolism

OP01

METABOLIC SYNDROME AMONG HEALTHY CHILDREN AGED 6-12 YEARS IN AL AIN, UNITED ARAB EMIRATES

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Introduction: United Arab Emirates (UAE) has among the highest rates of diabetes in the world. Few data are available about the burden of metabolic syndrome (MetS) among young children.
Purpose: In this study we determined the prevalence of Metabolic Syndrome (MetS) and its components in children aged 6 to 12 year in Al Ain, UAE.
Materials and Methods: As part of a global health project "Developed Developing Countries Partnership for Non-communicable Disease (NCD) Prevention", 622 parents in were invited to bring their children aged 6 to 12 years for the assessment of NCD risk factors. A self-administered questionnaire was used to assess socio-demographic characteristics, physical activity and dietary habits. Blood pressure, height, weight, waist circumference, fasting blood glucose, and plasma lipids were measured. Body mass index (BMI) was calculated frome weight (kg) divided by the squared height (m2). Overweight was defined as BMI ≥ 85th and < 95th percentile, and obesity as BMI ≥ 95th percentile according to 2000 CDC growth charts. We used waist circumference cut points (≥ 90th percentile) to define central obesity. MetS was defined according to the ATP III criteria.
Results: There were 234 children (51.7% females). Of these children 11.1% were overweight and 13.3% were obese. The overall prevalence of MetS in children was 9.9%. The prevalence of MetS was higher (11.3%) in children aged 10-12 years as compared to 6-9 years old children (8.3%). Similarly, more females (9.9%) had MetS than males (7.9%). Burden of individual MetS components included central obesity 27.7%, hypertension 18.9%, dyslipidemia 6.84%, low High Density Lipids 47.7% and high fasting blood sugar 1.7%.
Conclusion: The prevalence of the MetS is high among children, particularly among females. In individual components of MetS, central obesity in particular was very high.
Key words: Metabolic Syndrome, Obesity, Children, UAE

OP02

PATTERNS AND GENETIC POLYMORPHISMS IN UNCONJUGATED HYPERBILIRUBINEMIA (GILBERT SYNDROME)

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Introduction: Gilbert syndrome is an underdiagnosed clinical entity since more than 30% of patients are asymptomatic. The clinical and genetic patterns and genetic have not been fully elucidated. Several genetic association studies have linked a number of single nucleotide polymorphisms (SNPs) with unconjugated hyperbilirubinemia.
Purpose: We conducted the current study to investigate the different clinical presentations and to validate the association of SNPs with development of hyperbilirubinemia patients with Gilbert syndrome in the Kingdom of Saudi Arabia.

Materials and Methods: Screening of patients attending the outpatient's clinics identified 65 patients with Gilbert syndrome and were enrolled in the study. Complete laboratory work up, abdominal ultrasound and abdominal CT was performed. Genotyping of five SNPs in two candidate genes was conducted in all patients with hyperbilirubinemia in addition to 100 controls by PCR-RFLP, Gene Scan analysis and direct DNA sequencing.
Results: The study cohort included 27 males and 38 females (age range 12-32 years; mean 18 ±12.8 years). The patients included 40 Saudis, 12 Indians, 9 Jordanians and 4 Filipinos). Jaundice was the only manifestation in 45% of cases. Nonspecific symptoms such as abdominal cramps, fatigue, and malaise were reported in 40% of cases and 15% of individuals were asymptomatic. Genetic polymorphisms of the UGT1A1 promoter, specifically the -3279 T➔G phenobarbital responsive enhancer module (rs4124874) and (TA) 7 dinucleotide repeat (rs8175347) as well as the coding region variants (rs2306283 and rs4149056) of the OATP2 gene were significantly higher among the cases than the controls.
Conclusion: Gilbert syndrome should be suspected in patients with unexplained hyperbilirubinemia or non-specific symptoms. The UGT1A1 polymorphisms and number of variants are associated with altered bilirubin metabolism and could be genetic risk factors for neonatal hyperbilirubinemia

OP03

"MAGIC POTION" TO TACKLE INDIA'S SILENT CRISIS - SAM (SEVERE ACUTE MALNUTRITION) IN CHILDREN

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Introduction: Every day on an average 26,000 children below 5 years of age die due to malnutrition around the world mostly from preventable causes, nearly all of them live in the developing countries. Every third malnourished child in the world is Indian.
Purpose: Tackling malnutrition in children is our National Emergency .Nearly 45 -- 50% children between 1 month to 5 years of age are malnourished , with under 5 mortality rate around 36% in Maharashtra state. Malnutrition increases this rate by almost four folds. During the rehabilitation phase of SAM management a diet based on energy dense local foods (EDLF) along with multivitamin-multi mineral supplements given at regular intervals under supervision with counseling and play therapy will help in rapid catch-up growth in weight (> 10 gm/kg/day) of SAM children over a period of 14 days. This facilitates early discharge from the in-patient care with reduced chances of secondary infections and subsequent mortality. This study aimed to determine catch-up growth (gm/kg/day) in SAM children using EDLF -- Our "Magic Potion", at a hospital based Nutrition Rehabilitation Center (NRC)
Material and Methods: Prospective hospital based interventional study at the NRC of a Tertiary Teaching Government Hospital in Pune, India. Data is from July 2012 to August 2013. Enrolled children between the age group of one month to 60 months with SAM as per WHO criteria .The children were started on specially prepared feeds in the NRC comprising of puffed rice, sugar, milk powder, oil, groundnut powder and water in pre determined proportions to give 75, 100 and then 150-200 Kcal per 100 ml. Supervised feedings with daily weight monitoring and structured play therapy was implemented. The data collected was analyzed to see the effect of this diet on the daily weight gain in gm/kg/day in every child.
Results: Of the 120 children with SAM 70% were females. Mean age 14 months (range 1-60 months). Underlying systemic illness was seen in 73%, commonest being pneumonia and diarrhea with dehydration and shock. Risk factors for SAM were -- Inappropriate feeding habits (60%; OR 2.02; CI 0.68-5.94)), Incomplete vaccination((55%; OR 1.30; CI 0.45-3.72) and below poverty line (39%; OR 2.28; CI 0.78-6.69) .Mean weight gain on the prescribed diet (EDLF) was good (> 8 gm/kg/day) in 52%. Weight gain was higher by almost 40% in the absence of underlying systemic illness in any week. No mortality was noted during the study period. All the mothers/ caretakers confidently prepared the diet themselves at the time of discharge. Follow-up upto 6 months showed steady weight gain in all.

Conclusions: The diet of EDLF was found to be suitable, cost-effective for the nutrition rehabilitation of SAM children with good weight gain as recommended by WHO. The cost of 100 gms of this special feed is only Rs 10/- (< 25cents) giving 130 kcal. Can be used in community management of SAM.

OP04

NORMAL SALINE ALONE VS POLYELECTROLYTES SOLUTION FOR CORRECTION OF DIARRHEA-RELATED METABOLIC ACIDOSIS OF HYPERNATREMIC DEHYDRATION.

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Introduction: Hypernatremic dehydration (HND) may induce brain shrinkage, which can tear the cerebral blood vessels especially during rapid correction, leading to cerebral hemorrhage, seizures,paralysis, and encephalopathy with subsequent higher morbidity and mortality .
Aim of the study: To demonstrate safety and efficacy of using normal saline (NS) alone for correcion of diarrhea related metabolic acidosis (DR-MA) of Hypernatremic dehydration (HND).
Subjects and Methods: 48 patients with (DR-MA) of (HND) are taken as cases who are treated with NS alone. 36 of age & sex matched control with (DR-MA) of (HND) were retrospectively studied who are treated with polyelectrolyte solution . After correction of shock with NS in both groups, deficit given according to serum Na (sNa^+) level. sNa^+145-157 mEq/L will be given deficit fluid over 24 hrs, 158-170 mEq/L will be over 48hrs, 171-183 mEq/L will be over 72 hrs, and from 184-196 mEq/L will be over 84 hrs. Deficit was given in addition to maintenance fluids which is given as usual.
Results: In case group, hypoglycemia was not a threat as most cases of HND are associated with hyperglycemia. The mean time for pH correction was 8 hrs while that of controls was 10.5 hrs. Hourly drop of sNa was 0.54 mEq/L in our cases, while that of controls was 0.64. 2 Cases had convulsions corrected with Nacl 3% & resume infusion saline after that & 5 patients died. In the control group who were retrospectively studied, 6 patients died & 6 patients had convulsions corrected with anticonvulsants and Nacl 3%.
Conclusions: 1-all patients with HND should be admitted to PICU; 2- NS is a safe rehydration fluid with a satisfactory rate of pH correction & Na drop and low incidence of morbidity and mortality.

OP05

ESOPHAGEAL FOREIGN BODIES IN PAEDIATRIC PATENTS: REPORT ON 70 PATIENTS

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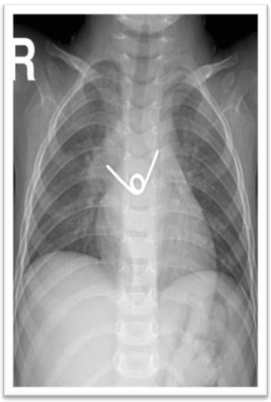
Introduction: Esophageal foreign bodies (EFBs) are relatively a common clinical problem in pediatric patients. Most of them pass harmlessly through the GI tract; however some can cause significant morbidities. Purpose: This study was conducted to review our experience in managing esophageal foreign body in pediatric patients, with more emphasis on the management and the outcome of the complicated ones.
Material and methods: During the period between March1995 to March2012, All children admitted to king Khalid university hospital, Riyadh, Saudi Arabia with the final diagnosis of esophageal foreign bodies were reviewed. Their medical records were analysed in respect to demographic data, presenting symptoms, work up investigation, management, complications and outcome.
Results: A total of 70 patients were found. Their age ranged from 5days to 12years (Mean 4.4yr). There were 38(54%) males and 32(51%) females. Majority of them 53(76%) presented less than 24hrs. Drooling of the saliva, vomiting, respiratory symptoms and dysphagia were the commonest presenting symptoms. 13(18.5%) patients had underlying predisposing factors. Chest radiography was the commonest radiological investigation and it was done in 65(93%) patients. Coin was the commonest EFB ingested by our children (43%), followed by metallic objects (20%). 4(5.7%) patients presented with complications

secondary to the foreign body impaction. Rigid esophagoscopy was performed in 61(87%) patients; Removal was possible in 86%. In seven patients FBs were found in the hypopharynx, and in 6 of them the FB removed by Mc Gill forceps. Two patients needed operative intervention, one undergo right thoracotomy while the other right thoracoscopic removal. One foreign body passed spontaneously without intervention. All patients had a successful removal of FB. No post esophagoscopy/operative complications. In follow up ranged from 2 to 12 months, all patients had complete recovery without any sequels.

Conclusion: EFBs are relatively a common clinical problem in pediatric patients. Underlying predisposing factors to EFB impaction are not uncommon. Long retained EFBs associated with higher incidence of complications. Rigid esophagoscopy was successful in extracting most of the EFBs and proved to be safe and effective procedure.



	Complication	Type of FB	Duration of ingestion	Management
1	Localized perforation with inflammatory reaction	Cloths clip	25 days	Thoracotomy and removal of FB
2	Esophageal stricture, wall perforation and inflammatory reaction	Piece of sharp plastic paper	6 months	Thoracoscopy, removal of FB and esophageal dilatation
3	Acquired esophageobronchial fistula	Disc Battery	2 weeks	Rigid esophagoscopy and rigid bronchoscopy. Fistula healed spontaneously
4	Perforation of hypopharyngeal wall	Earring	30 minutes	Rigid esophagoscopy, FB removal using McGill forceps.

OP06

CORRELATION BETWEEN THE DIFFERENT PH-METRY SCORES IN GASTROESOPHAGEAL REFLUX DISEASE IN CHILDREN

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Background and aims: The study compares the different scores obtained during 24 hours esophageal pH-metry, which used to be considered the "gold diagnosis" for gastroesophageal reflux disease.

Material and Methods: 234 children admitted in a pediatric gastroenterology regional center in northeast Romania, with suspicion of gastroesophageal reflux disease (GERD), underwent 24 hours pH-metry and the scores obtained (Boix-Ochoa, Demeester, Johnson-Demeester) were compared.

Results: Out of the 234 children, 172 (73.50%) had positive Boix-Ochoa score and 62 (26.50%) had normal Boix-Ochoa score (<11.99). Based on the Demeester score 149 children (63.68%) were positive, and 85

(36.32%) were negative. The correlation of the Demeester score with the Boix-Ochoa score was very high (r=0.978, p<<0.05, 95%CI). Considering the Johnson-Demeester score, 120 cases (51.28%) had GERD and 114 (48.72%) did not. The correlation of the Johnson-Demeester score with the Boix-Ochoa score was still high (r=0.94, p<<0.05, 95%CI).
Conclusions: As considered until now, the Boix-Ochoa score is the most accurate score to be used in pediatrics for the diagnose of GERD. The use of the different scores: Boix-Ochoa, Demeester, Johnson Demeester showed a high specificity of the pH-metry measurements applied to the study lot, but the last score has a higher risk of false negative results.

OP07

FECAL CALPROTECTIN DURING TREATMENT OF SEVERE INFANTILE COLIC WITH LACTOBACILLUS REUTERI DSM 17938: A RANDOMIZED, DOUBLE BLIND, PLACEBO CONTROLLED TRIAL

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Introduction: Fecal calprotectin level has been reported to correlate with inflammation in inflammatory bowel disease in adults and recently its relationship with infantile colic has also been described. Fecal calprotectin is elevated in infants with hematochezia and possible allergic colitis.
Purpose: To evaluate fecal calprotectin at the time of enrollment and its variation after 3 weeks of therapy with a probiotic (Lactobacillus reuteri DSM 17938) in infants with severe infantile colic admitted to our hospital for either hematochezia or food allergy or eczema. This study is aimed also to compare fecal calprotectin values in infants with infantile colic and symptoms of food allergy with healthy.
Materials & Methods: Forty three patients with severe infantile colic, diagnosed according to the Wessel definition, were prospectively enrolled , 25 of which received probiotic and 18 received placebo. The study population was composed as follows: 23 (48%) males, mean age at enrollment in the study 36.6 ±11.9 days, 36 (75%) exclusively breastfed. At enrollment, mothers were told to avoid cow's milk in their diet. Clinical responders after study period were considered infants who reduce crying time per day and the levels of calprotectin by at least 50% compared to baseline. Fecal calprotectin levels were measured in fresh stools of these patients before and after 3 weeks therapy using the Quantum Blue® Calprotectin rapid test, Buhlmann Laboratories AG, Schonenbuch , Switzerland. During the treatment clinical symptoms were assessed by parents, using a diary to register time of infantile crying per day as well as stools characteristics. A group of 19 healthy control were enrolled only in order to detect calprotectin values.
Results: Forty-three infants (L reuteri group: 25; placebo group: 18) completed the trial. A sustained clinical response after treatment with probiotic was observed in 17 (65.4 %) treated patients; the average values of fecal calprotectin were 601 ìg/g after therapy versus 920 ìg/g pre-induction ($p < 0.05$). Post-treatment fecal calprotectin was significantly lower in responders versus non-responders ($p = 0.012$). The control group showed a mean calprotectin value of 100 ìg/g, significantly different from the colicky group ($p < 0.005$).
Conclusions: The administration of L. reuteri DSM 17938 significantly decreases crying time and fecal calprotectin level. Colicky infants have significantly higher calprotectin levels than healthy controls. Finally, fecal calprotectin assay after probiotic treatment with Lactobacillus reuteri DSM 17938 is a marker to predict sustained clinical response and monitor gut health in infants.

Other

OP08

A SYSTEMATIC REVIEW OF COMPUTER-BASED REMEDIAL PROGRAMMES FOR PRIMARY SCHOOLCHILDREN DIAGNOSED WITH DYSLEXIA: RESULTS FROM MEDLINE

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Introduction: Dyslexia affects up to 15% of all children and are the most prevalent of all learning disabilities. With Information Technology (IT) devices being commonplace in the primary school classroom, advances in computer-based remedial programmes offer potential benefits in assisting dyslexic children to improve their reading skills. However a previous systematic review (Strong et al., 2010) found that Fast ForWord (FFW), a commonly used computer-based programme, gave no extra benefit.
Purpose: To determine whether computer-based programmes provide significant benefits beyond traditional remedial programmes in dyslexic primary schoolchildren. Materials and Methods: A systematic review was designed and conducted using items from the PRISMA statement. MEDLINE was searched in July 2014 for controlled trials of computer-based programmes involving primary schoolchildren aged between 6 and 12 years, with no restriction on publication date or language.
Results: After screening titles, abstracts and full papers using pre-established inclusion/exclusion criteria, we included 6 studies in the review. The studies involved 605 children and were conducted in the United States (3), Finland (1), France (1) and the Netherlands (1), between 2008 and 2013. The studies were heterogeneous; studying various programmes therefore precluding meta-analysis. There were 2 studies that included FFW and both studies showed no significant benefit. The Finnish study trialled their self-developed software called GraphoGame and found significant benefits in all the tested outcomes in the study group. The French group also tested a self-developed computer-based programme (developed by Magnan et al., 2004) and found that the experimental group progressed significantly more than the control group in all subsets of reading tests. The Dutch study also showed significant results of their computer-based programme, with the study group achieving reading ability of non-dyslexic children. Another US group used 2 computer-based programmes (RWT; Herron, 1995 and LIPS; Lindamood & Lindamood, 1998) in their study. They found that the experimental group gained significant progress compared to the control group. However the computer-based programmes were supplementary to teacher-led instruction, and the study did not provide a specific control for the computer-based programmes.
Conclusions: Although there are studies suggesting that computer-based programmes offer benefits to dyslexic schoolchildren beyond traditional interventions, the evidence is far from conclusive. More controlled trials are needed to assess effectiveness of computer-based programmes. Fundamentally, a more coordinated effort among researchers is needed to develop effective IT-based programmes to assist dyslexic children.

Neurology/ Neurodevelopmental Paediatrics

OP09

THE EFFECT OF MODULAR EDUCATION PROGRAM THAT RELATED TO THE CHILDREN WITH EPILEPSY AND THEIR PARENTS ON DISEASE MANAGEMENT

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Introduction: Epilepsy is chronic-neurologic disease, effects both child with epilepsy and their family. Purpose: This study was conducted to evaluate the effect of modular education program that given to the children with epilepsy and their parents on their disease management and education level, as a randomized controlled experimental study.
Materials and Methods: This study was conducted at Child Neurology Policlinic of a Akdeniz University Hospital in Turkey between February 2014 and June 2014. For both experiment (n=42) and control (n=50) groups, children who were 7-18 years old with epilepsy only and their parents were taken to the study. For doing the study written consent from ethic committee, children and their parents were taken. The context of that modular education program used in the study was constituted as a result of literature screening. Education was given child with epilepsy and their parents by using interactive teaching methods. Before and after the program data related to the children in experiment and control groups were collected by a researcher in face-to-face interviews using Epilepsy Knowledge Test for Children. Data for parents were collected by Family Information Form. Data were evaluated at computer by using tests of mean, percentage, homogeneity, importance between two means and importance of difference between two equal means.
Results: After modular education program, it is determined that the mean scores of knowledge test increased in the children and their parents of experiment group and decreased in the children of control group. It is determined that the difference between these mean scores of these groups were significant as statistically ($p<0.001$). Also, after the modular education program, the children and their parents interviewed in the experiment group told more positive statements about illness.
Conclusions: According to these results, it is suggested to be given consistent and regular education that used in interactive teaching methods, provided group interaction for children with epilepsy and their parents by nurses and team members.

OP10

FACTORS AFFECTING THE QUALITY OF LIFE IN CHILDREN AND ADOLESCENTS WITH EPILEPSY IN A RURAL COMMUNITY IN SRI LANKA: A QUALITATIVE STUDY

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Introduction: Epilepsy is an important neurological condition in childhood, which may have serious impact on quality of life (QoL). Minimizing seizure frequency and adverse drug effects being the prime goal of epilepsy management, the life of a patient beyond the clinic remains largely unknown.
Purpose: To identify the factors affecting the QoL in children and adolescents with epilepsy (CAWE) in a rural community in Sri Lanka. Materials and Methods: This is a part of an ongoing larger study on proxy assessment of QoL in CAWE aged 0-18 years in a rural community in Sri Lanka. We conducted a qualitative study comprising 24 in-depth interviews with CAWE(5), parents(16) and siblings(3) of CAWE and 2 focus group discussions with key informants in 3 rural districts, representing multi-ethnic rural community in Sri Lanka. Interviews were held in local languages, tape-recorded, transcribed and translated to English prior to thematic content analysis.

Results: Three main themes that evolved from the thematic content analysis are: factors related to the child, family and society. a) Child: Level of independent physical functioning, psychological and emotional well-being are the identified factors affecting how CAWE perceive themselves. Learning difficulties are primary concern in younger ages whereas worry about job opportunities is more in adolescents. Restriction to certain food and recreational activities due to fear of seizures were also reported. b) Family: building relationships is affected by behavioral problems like anger and aggressive behavior. Nevertheless, good relationship is reported between CAWE and their parents and siblings in this study. Uncertainty of seizures, adverse effects that may occur with long-term anti-epileptics, cost of treatment, marriage and employment of CAWE were the mostly expressed parental concerns. c) Society: epilepsy unawareness, stigma and discrimination surrounding epilepsy are the key factors influencing acceptance of CAWE in the society. Apparently, females are affected more by stigma. Health-seeking behavior is inspired by the spiritual and religious believes in this rural community. However most of the parents of CAWE understand the importance of continued drug therapy.
Conclusion: Epilepsy poses a negative impact on the QoL of CAWE. Factors affecting QoL vary for a child, adolescent or parent making survival with epilepsy a diverse phenomenon for each individual. Stigma and discrimination are the key social factors challenging the QoL of CAWE in this rural community.

OP11

INTENSIVE REHABILITATION IN CHILDREN WITH NEUROVELEPMENTAL DISORDERS

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Introduction: Intensive rehabilitation according to Stojcevic Polovina (SP) is developed mainly for rehabilitation of children with cerebral palsy (CP). The most important features of the SP rehabilitation are intensity (recommended daily dose: three hours) and following normal development. The rehabilitation according to SP is based on the Neuronal Group Selection Theory. In order to evaluate the effectiveness of therapeutic method we carried out study on intensive rehabilitation according to SP in children with CP. In this study we showed that in more than 50% of patients improvement was big enough to reclassify the patients in better Gross Motor Function Classification System (GMFCS) level.
Purpose: To show that intensive rehabilitation according to SP could be applied in other neurodevelopmental disabilities. Method: Presenting the results of intensive rehabilitation according to SP in two case studies, in children with etiology of disability other than CP.
Results: First case was a boy with spastic tetraparesis with unknown etiology (suspected post vaccinal encephalitis or mitochondriopathy). He started with intensive rehabilitation at age of 6 as GMFCS level 3 (unable to stand without support) and after 3 years of intensive rehabilitation his GMFCS level was 2 (independent walking indoors). Second case was a boy with rare genetic disease, with partial deletion of chromosome 7 (FISH: 46 X, der (Y) t(Y; 7)(q12; q3?4). Due to the congenital heart defect, the physiotherapy was very limited and the child showed very little psychomotor improvement. With time, his heart condition improved and intensive rehabilitation was started. The child's motor development started improving soon after. He could crawl on all fours and kneel at the age of three and he achieved independent walking at age of six.
Conclusion: These two case studies suggest that intensive rehabilitation according to SP could have a significant effect in neurodevelopmental disabilities other than CP.

OP12

CLASSIFICATION AND RISK FACTORS FOR CEREBRAL PALSY IN THE KORLE BU TEACHING HOSPITAL, ACCRA: A CASE CONTROL STUDY

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Introduction: Cerebral palsy (CP) is a lifelong neurodevelopmental condition caused by injury to the developing foetal or infant brain. In developed countries 75-80% of cases are as a result of prenatal brain injury. Data from developing countries is limited; however a higher proportion of affected children may have peri-natal or post-natally acquired injury.
Purpose: To classify children with cerebral palsy attending a neurodevelopmental clinic in Accra into clinical subtypes, determine the prevalence of associated impairments and identify risk factors for CP among the study population.
Materials and Methods: Prenatal, perinatal and postnatal events were compared between 142 children with CP and 142 age and sex-matched controls. Clinical subtypes were assessed using the Surveillance of Cerebral Palsy in Europe (SCPE) classification system and associated impairments evaluated. Risk factors were expressed as odds ratios (ORs) with 95% confidence intervals using a multivariate logistic regression model.
Results: Bilateral spastic (60.6%) and dyskinetic CP (20.4%) were the most common clinical subtypes, followed by unilateral spastic CP (10.6%). The prevalence of epilepsy, visual and hearing impairments were 40.1%, 23.2% and 9.9%, respectively. Factors associated with an increased risk for CP were severe neonatal hyperbilirubinaemia (OR 43.94, $p < 0.0001$), neonatal seizures (OR 32.81, $p = 0.001$), birth asphyxia (OR 6.69, $p = 0.027$), irregular menstrual cycle (OR 4.58, $p = 0.021$), prematurity (OR 3.45, $p = 0.008$) and neonatal sepsis (OR 2.83, $p = 0.020$).
Conclusions: The clinical spectrum of CP in this study cohort differs from that of developed countries with a high prevalence of dyskinetic CP. Severe neonatal hyperbilirubinaemia resulting in dyskinetic CP was the most significant and preventable risk factor of cerebral palsy in this study population.

Neonatology

OP13

COMPARISON OF POLYTHENE OCCLUSIVE SKIN WRAPPING WITH ROUTINE CLOTH WRAPPING IN REDUCING HEAT LOSS DURING TRANSPORTATION IN PRETERM NEONATES (<34 WEEKS) AFTER DELIVERY: RANDOMIZED CONTROL TRIAL

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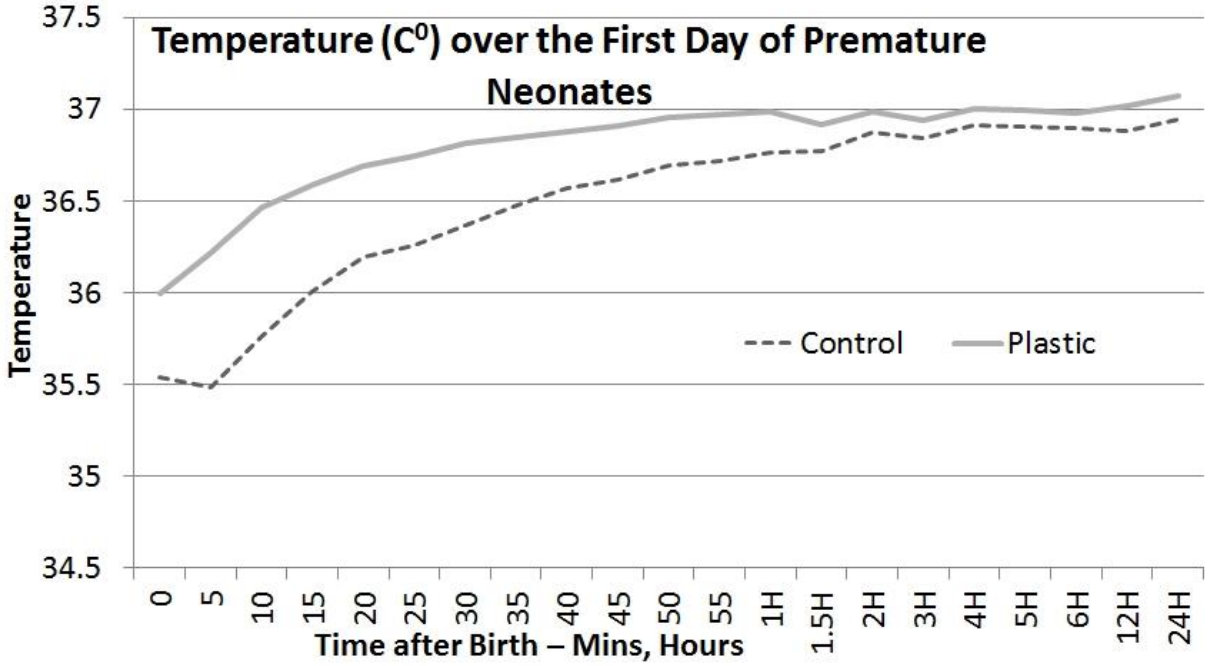
Introduction: Preterm neonates are most vulnerable to hypothermia especially in the first hour after birth, during which they are transported to neonatal intensive care (NICU). Transport incubators are not available in resource poor settings, and temperature management remains a challenge.
Purpose: To determine efficiency of polythene occlusive skin wrapping versus routine cloth wrapping during intra hospital transportation after birth on incidence of hypothermia in preterm neonates (<34 weeks) within 24 h of life.
Materials & Methods: Preterm neonates (<34 weeks) were randomized into polythene occlusive skin wrapping (Plastic Group) and routine cloth wrapping (Control Group). Axillary temperature was recorded using digital thermometer in degrees centigrade at baseline (just after resuscitation), every 5 min in the first hour, 2h, 3h, 4h, 5h, 6h, 12h and 24 h of life. Interim analysis is presented.

Results: There were 50 neonates in plastic group and 35 in controls. A total of 54 (63.5%) received NICU admission, 10 (11.8%) received intermediate care and 21 (24.7%) received routine care. Mean (SD) birth weight of study population was 1663.76 (393.49) [min=840, max=2300] gm. Forty five (52.9%) required ventilator support. Mean temperature was significantly higher in plastic group for most time intervals. Average temperature in the plastic group increased by 0.2 degrees while it decreased by 0.06 degrees in controls during intra-hospital transfer. Good thermal control was achieved and maintained in about 10-15 min for plastic group vs 35-40 min in controls.

IMAGE 1



Incidence of mild hypothermia [29 (82.9%) vs 29 (58.0%), p=0.015] as well as moderate hypothermia [27 (77.1%) vs 18 (36.0%), p<0.001] was higher in controls. There was only one case of severe hypothermia which occurred in the plastic group in neonate weighing 840 gm at birth.
Conclusions: Neonates wrapped in polythene occlusive covering achieved rapid thermal control and maintained it as compared to babies wrapped in cloths. They also had decreased incidence of hypothermia for initial 24 h of life. Polythene occlusive skin wrapping is cheap, effective & feasible way of thermoregulation. Further research to establish it at scale needs to be undertaken.

OP14

REPORT ON KANGAROO CARE PRACTICES IN A TERTIARY LEVEL NICU IN WESTERN INDIA -- SCOPE FOR IMPROVEMENT.

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Introduction: High risk low birth weight neonates admitted in neonatal intensive care units (NICU) require prolonged care which is expensive. Kangaroo care (KC) involves skin to skin contact between a family member and the newborn, frequent and exclusive or nearly exclusive breastfeeding, and early

discharge from hospital. It has many benefits such as decreased mortality, decreased morbidity, better bonding, early discharge and rapid establishment of birth weight being the foremost among them.
Purpose: We studied association of kangaroo care duration with reduced hospital stay, reduced mortality and morbidity as well as factors governing delivery of kangaroo care.
Materials and Methods: We collected data from charts of neonates < 2Kg that were admitted to the NICU from January 2012 till June 2014. Data included socio-demographic variables, clinical profile of neonates including treatment, details of KC and important outcomes such as mortality, weight gain, antibiotic usage, ventilator care, etc. We used descriptive statistics to report profile of study population, and t-test and regression to explore associations.
Results: A total of 106 neonates were included (68 boys, 38 girls). KC was provided to 52 (49.1%) neonates. Only 3 (2.8%) neonates were full term whereas 49 (46.2) were late pre-term, 34 (32.1%) were moderate pre-term, 16 (15.1%) were very pre-term and 2 (1.9%) were extremely pre-term. Significant proportion required caesarean section (45 (42.5%)). About half of the neonates (51) required ventilator support, and most neonates (69) required CPAP support. The mean (SD) birth weight of the neonates was 1538.07 (337.88) gm. The mean (SD) hours for which KC was provided was 13.92 (21.67). The mean (SD) duration of KC was significantly greater for neonates who showed weight gain as compared to those who showed weight loss [20.92 (27.89) vs. 6.38 (6.38), p=0.016]. The mean (SD) duration of KC was significantly greater for neonates who did not require antibiotics vs those who required antibiotics [17.73 (24.68) vs. 4.23 (3.39), p=0.002]. The mean (SD) KC hours per day was 2.86 (1.89). Linear regression revealed that mothers age was the only significant predictor of KC hours per day (p=0.074). There was no significant difference between mean KC duration for neonates who required ventilator support as compared to those who did not require it.
Conclusions: The few hours of KC given per day suggest that this intervention with proven benefits is not being utilized optimally. Qualitative research is warranted to determine the barriers for this lacuna.

OP15

A PROSPECTIVE STUDY OF NOSOCOMIAL INFECTION IN A NEONATAL INTENSIVE CARE UNIT(NICU)
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A prospective study of nosocomial sepsis was done in NICU of surgiscope Pvt. Hospital tofind out the organism causing nosocomial infection in neonates and theit resistance pattern as well as risk factors, clinical presentation, hematological parameters and outcome over a 12 month period. A total of 363 neonates were admitted in ICU Among them 250 blood sample were sent for culture and sensitivity in suspicious case of nosocomial infection.All of them were on antibiotics. Out of these 36.8%(92/250) had a positive culture. Isolated bacteria were mostly gram negative bacilli (80.43%) with a marked predominance of Klebsiella (32/43.2%) followed by E.coli(18/24.32%), Pseudomonas (16/21.62%), and acinobacter (5/6.75%). Resistance to gentamycin was 100% for all organisms. Resistance to amicacin was 100% for E.coli, Pseudomonas, acinobacter and 40% for Klebsiella. Resistance of these gram negative rods ranged from 70-100% and 50-100% for ceftriaxon and ceftazidim respectively.Among the culture positive cases , prematurity (67.39%) and LBW (60.86%) were the main risk factor. Refusal to fed (78%) and lethargy (68%) were two main clinical presentation of nosocomial sepsis.Its was also observed that in the culture positive group 68.5 % (63/92) had low hemoglobin level (<14 gm /dl) 18.5% (17/92) had leucopenia (TLC<5000mm3) and 63% (58/92) patient had thrombocytopenia (platelet count<100000 mm3),75% (69/92) had elevated I/T ratio. C- reactive protein was positive in 84.78% (78/92) cases. 30.43% (28/92) culture positive neonates were died. Mortalality was high in preterm LBW babies (37%,23/62). Emergence of multi drug resistant organism in ICU is a grave problem causing high mortality and should be prevented with strict implementation of strategies to control nosocomoial infection, active surveillance of infection rates and adherence to well planned antibiotic protocols.

OP16

A STUDY ON PARENTAL STRESS IN THE NEONATAL INTENSIVE CARE UNIT USING PARENTAL STRESSOR

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Introduction: Parents of neonates admitted in the Neonatal Intensive Care Unit (NICU) undergo a lot of stress making it imperative for health care providers to identify and act upon the sources of stress.
Purpose: In this prospective study, we determine the level of stress among parents of neonates admitted in NICU using Parental Stressor scale: Neonatal Intensive Care Unit (PSS: NICU). We also correlate the scores obtained with relevant parental and neonatal factors which could contribute to parental stress. Setting: Tertiary care neonatal unit in northern India. Materials and methods: The study was conducted from 1stNovember 2009 to 30th April 2011. All parents of intramural neonates admitted to the NICU for at least 48 hours were administered the questionnaire PSS: NICU. Relevant parental demographic data as well as relevant neonatal data was also collected. Total as well as mean scores and sub scores were obtained. Correlation of the scores with other factors was done using statistical package for social sciences, version 12 (SPSS).
Results: Total of 343 parents filled the questionnaire. The total mean PSS: NICU scores ranged from 1.35 to 4.91 with a mean of 3.71. Mean score for mothers was 3.78 while that for the fathers was 3.65. The mean sub scores were highest for infant behavior (M = 4.25), followed by parental role alteration (M = 3.64).The mothers scored higher than the fathers in all the sub scores. Factors like birth weight and the gestational age influenced the stress levels to a significant degree while factors like gender of the neonate, education and socio-economic status of the parents, presence of birth asphyxia, ventilation status and the nature of illness of the infant did not influence the stress levels to any significant levels.
Conclusion: Parents of neonates admitted in the NICU experience high levels of stress. Parents of neonates with lower birth weights and gestational age experience more stress. Keywords: Parental stressor scale: neonatal intensive care unit, parental stress, neonatal intensive care unit.

OP17

EFFICACY OF HUMIDIFIED HIGH FLOW NASAL CANNULA IN WEANING PREERM INFANTS FROM NASAL CPAP.

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Introduction: The use of Humidified High flow nasal canula has been widely adopted in the neonatal units. It provides humidification which preserves nasal mucosa enabling enhanced mucocilliary function, nasopharyngeal dead space washout and high flow rates permitting constant oxygen delivery in addition to CPAP effect. But the end pressure generated is unpredictable, its exact mechanism of action poorly understood and also there is insufficient evidence of its effectiveness as a respiratory support in preterm infants (Cochrane review 2012).
Purpose: To assess the efficacy of HHFNC as a transitionary step in weaning preterm neonates from CPAP. Material and Methods: It was a retrospective data based review on preterm neonates of less than 30 weeks gestation receiving HHFNC support admitted to the NNU at Aberdeen Maternity Hospital in UK between Jan 2011 to Jan 2013. Neonates with confirmed late onset sepsis, grade III or IV IVH and major congenital anomalies were excluded from the study. Primary outcome was re-institution of nasal CPAP or invasive ventilation as a result of increased work of breathing, apnea, bradycardia, decreasing oxygen saturation < 87% and worsening blood gases.

Results: In the study 30 premature infants received HHFNC support as a weaning phase from nasal CPAP. Out of these 13 (44%) neonates failed HHFNC (Group A) while 17 (56%) (Group B) successfully tolerated HHFNC. There were 7 females and 6 males in group A while 10 females to 7 males in group B. Babies in Group A had a mean birth weight 1124 gram in comparison to 1145 gram in group B (p-value of 0.2). Gestational age at birth in group A was 27.4 weeks while in Group B it was 28.5 weeks (p-value of 0.2). Mean Gestational age for introduction of High flow was 30.6 week in group A while it was 33.6 week in group B (p value 0.01)
Conclusion: This study showed that most preterm did not tolerate HHFNC and needed nasal CPAP. The failure was significantly higher when it was started before 33 weeks corrected gestational age.

Medical Education

OP18

THE TRAINING AND CAREER PATHS OF CANADIAN PAEDIATRIC RESIDENTS, 2004-2010

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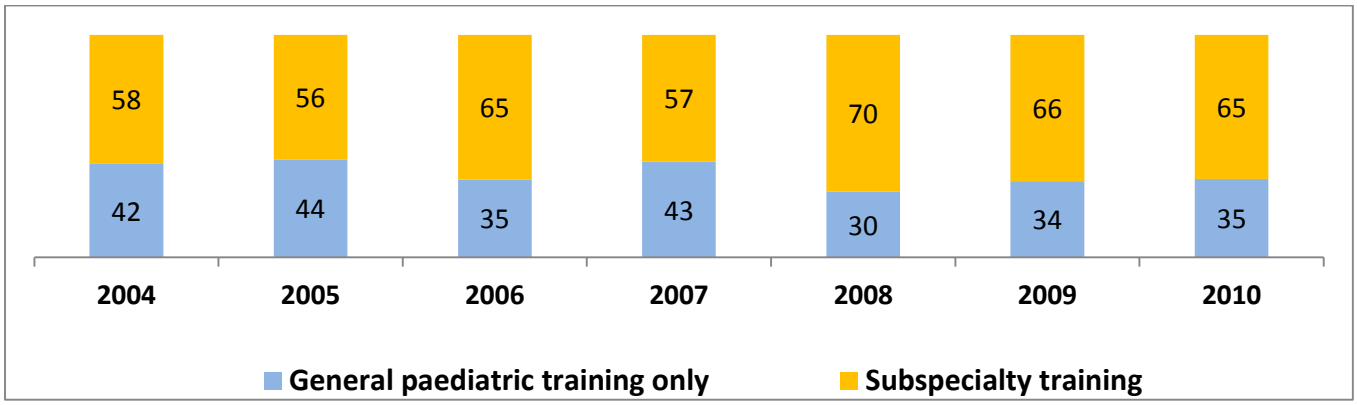
Introduction: Canadian paediatric residents usually pursue training in general paediatrics or subspecialty paediatrics. Graduates can work in community-based settings, hospital-based settings, or a combination thereof. Furthermore, new graduates may work in large urban or rural/remote centres. To date, there has been no study profiling the training and career paths of Canadian paediatric residents.
Purpose: To profile the training and career paths of paediatric residency program graduates in Canada
Materials and Methods A survey of all paediatric residency programs was completed in 2010 and updated in 2011. All residency programs in Canada participated. Residents were reported by their core training program (at completion of their third year of postgraduate training).
Results: Six hundred and ninety nine residents completed their core training in paediatrics in Canada between 2004 and 2010. The annual number of paediatric residents who completed their core training rose from 83 in 2004 to 122 in 2010. Training path data was available for 685 (98%) residents. Overall, 430 (63%) residents completed subspecialty training while 255 (37%) completed general paediatric training only.
There was a significant increase in the frequency of subspecialty training from the early graduates (2004-2007) to the later graduates (2008-2010) (Figure 1). Career path data was available for 665 (95%) of all Canadian paediatric residents: 405 (61%) of residents were working as subspecialists or still in training, 245 were working as general paediatricians and 15 graduates (2%) had other practice types. Of all residents currently in practice, only 36 (8%) were working in rural/remote or underserviced areas.
Conclusions: Greater than 60% of all Canadian paediatric residents pursue subspecialty careers. There was a significant increase in the frequency of subspecialty training amongst later year graduates. Few graduates are practicing in rural/remote or underserviced areas. Canadian paediatric residency programs may not be producing the right mix of graduates to meet societal needs.

Figure 1:
Percentage of Residents Who Completed General Paediatric Training Only vs. Subspecialty Training, 2004-2010



General Paediatrics

OP19

FEATURES IN SEPTIC CHILDREN WITH OR WITHOUT SEVERE ACUTE MALNUTRITION AND THE RISK FACTORS OF MORTALITY

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Introduction: Immunity is heavily impaired in children suffering from severe acute malnutrition (SAM), often resulting in sepsis and death. Knowledge of biochemical derangements during the early stage of sepsis among these children with SAM would help in the treatment and reduce fatality.
Purpose: To describe and compare the features of sepsis in children with SAM and non-SAM, and the risk/associated factors of death in septic children.
Materials and Methods: Children aged 6-59 months with SAM (WHZ <-3) or bi-pedal-edema, and non-SAM admitted with diarrhea+sepsis at the icddr,b's hospital from April 2010 to December 2011 were studied prospectively. Results: Total 126 (48-SAM and 78-non-SAM) children were studied, all had diarrhea+sepsis. Mean±SD age was 19.1±14.2 months; 52 % were female; capillary-refill-time, neutrophil and band %, BUN, PH, Hb, platelet, serum-TCO2, phosphate, calcium, CRP, creatinine, and creatinine-phosphokinase were similar between SAM and non-SAM children ($p>0.05$). But, serum-sodium and albumin were lower while, leukocyte count, hypoglycemia, septic-shock and mortality were higher in SAM than non-SAM children ($p<0.05$). Logistic-regression showed: septic-SAM children were 13 times more-often likely to have fever or hypothermia than septic-non-SAM children. Among these 126 children, 25 (19.8%) died. WHZ (-3.0±2.1 vs. -2.7±1.5), % band-cell (5.2±6.4 vs. 2.6±5.5), Na (154±29 vs. 142±21) and BUN (25.7±21.5 vs. 17.8±16.1), septic-shock (92% vs. 9%) were significantly higher, and Hb (9.2±1.6 vs. 10.3±2.0) and albumin (2.9±1.1 vs. 3.4±0.8) were significantly lower among who died than alive children respectively. Children who died were 4 times more likely to be severely wasted and 3 times more likely to had moderate-anemia.
Conclusions: Case fatality rate is significantly high in sepsis particularly in septic-shock and SAM children. These features may help in the better management of septic-children with/without SAM and thus reduce fatality.

OP21

EFFECT OF GUIDED IMAGERY RELAXATION SESSION AND STORY TELLING ON THE INTENSITY OF NUSEA AND VOMITING AMONG CHILDREN UNDERGOING CHEMOTHERAPY

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Aims of this study were to develop, implement and evaluate the effect of guided imagery relaxation session and telling stories on reducing the intensity of nausea and vomiting, as well to compare between the two methods. Design a quasi experimental design was utilized at: Settings Pediatric Oncology Department in Tanta University Hospital, Pediatric Oncology Department in Tanta Oncology Center and Pediatric Oncology Department in Specialized Pediatric Hospital in Benha University.
With a convenient sample of 90 children between 4-18 years old receiving chemotherapy. They classified randomly into three groups for utilizing Guided Imagery Relaxation Sessions with the first group, Telling stories with the second group and the third is control group. The first and second group were assessed at first, and second months of intervention.
Tools of this study includes: Morrow Assessment of Nausea and Emesis Questionnaire, Rhodes Index of Nausea and Vomiting likert Scale, Katz Index of Independence in Activity of Daily Living Checklist and Self-rating Scale. The results showed that approximately all children in the relaxation and telling stories group did not have nausea and vomiting compared by control group.
After the first and second months of relaxation and telling story. The study concluded that children exposed to guided imagery relaxation sessions and story telling experienced lower intensity of nausea and vomiting compared to children in the control group. Therefore, this study recommended that guided imagery relaxation session and telling story should be integrated as a part of routine nursing care along with pharmacological interventions for the management of nausea and vomiting for those children. Future research should be tried to develop and update other forms of relaxation techniques.
Key Words: Cancer, Chemotherapy, Nausea and Vomiting, Guided imagery relaxation, Telling story. Nursing intervention.

OP22

DENTAL CARIES; ITS EFFECT GROWTH OF FIRST AND SECOND GRADE PRIMARY SCHOOL CHILDREN

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Introduction: Dental decay is the most common childhood disease worldwide, most of decay remains untreated particularly in developing countries affecting the growth and wellbeing of millions of children. Purpose of this study is to assess the effect of dental caries on the growth of first and second grade primary school children. Materials & Method: Design: descriptive study design was used to fulfill the aim of the study.
Sample: A multi stage random sample of 400 students from different primary school, 1st and 2nd grade were selected. Setting; this study was conducted in Samannoud city.
Tools for data collection: 1) an interviewing questionnaire was used to collect socio-demographic data, assess knowledge, attitude and practice of children regarding dental care. 2) Bio-physiological measurements were used to assess body growth; children's height, weight & body mass index. The main results revealed that: the majority 80% of the studied sample reported that they have dental caries. Regarding student's knowledge about proper use of tooth brush, 61.3% of children with no dental caries answer correctly, compared to 23,8 % of children with dental caries. Also half of studied children who have dental caries did not use tooth brush correctly. Children growth illustrates a statistical significant difference in BMI of children with caries was 17.36± 2.46 whereas for children without caries 21.63± 2.85.

Conclusion: the body weight, height, and body mass index of the studied prmary school children with caries were less than without dental caries.
Recommendations: 1.Screening school children to discover the cases of dental caries and treat it. 2. Heath education for school children about oral hygiene as a prophylactic way for preventing dental caries. 3. An effective school health program could be the most effective improvement of children health.
Keywords: Dental Caries, school children, Growth

Genetics

OP23

MORTALITY DUE TO BIRTH DEFECTS IN SAUDI ARABIA. A FOUR YEARS OF FOLLOW UP STUDY

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Introduction: Birth defects (BDs) are structural or functional anomalies causing physical or mental disability, some of which can be fatal. Although birth defects are a leading cause of death in infancy and early childhood, the cause is unknown for approximately 70 percent of all cases (CDC, 2005).
Purpose: We will addresses the prevalence of birth defects (BDs) in a Saudi population, focusing on the types of BDs with the highest mortality rate, factors that affect mortality, and on the need for BDs preventive strategies that are of low cost and high impact.
Methods: A case-control study nested within a 3 years prospective cohort study for pattern of fetal and neonatal BDs in a Saudi population was conducted at Prince Sultan Military Medical City, in Riyadh, Saudi Arabia. Mortality up to the age of 2 years was calculated for the study patients and their controls starting July 2010 till June 2013 plus one year for followup.
Results: During the study period, 30,351 mothers gave birth to a total of 30,753 babies. There were 1239 babies with one or more major BDs and 1258 babies were randomly selected as controls. The prevalence of major BDs was 43.2/1000 live births. Total number of deaths was 234 (19.84%). Fifteen % of those were in babies with Central nervous system (CNS) malformations, 5.12 %, had renal dysplasia and 4.27% had congenital diaphragmatic hernia. There was a higher rate of consanguinity and maternal diabetes among cases than in the control group. Discussion: Prevalence of BDs in this population is high compared to data from other registries. Mortality rate was 19.84% of cases. The neonatal period had the highest rate (28%), compared to perinatal and infancy (25% each). CNS defects were the leading cause of mortality; this can be partially explained by the low rate of maternal folic acid use. We will later discuss other risk factors types of BDs that had a higher rate of mortality.
Conclusions: Birth defects had a higher prevalence and a higher mortality rate in our hospital-based study. Factors associated were; consanguinity, maternal diabetes, folic acid consumption and others. Preventive programs could be more productive in this population that has a high prevalence of BDs.

OP24

A NOVEL MUTATION IN THE WNT1 GENE AS GENETIC CAUSE OF SEVERE OSTEOGENESIS IMPERFECTA ASSOCIATED WITH BRAIN ATROPHY

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Introduction: Osteogenesis imperfecta (OI) is a group of clinically and genetically heterogeneous diseases. In 2013, several groups described a novel form of osteogenesis imperfecta (type XV). This autosomal recessive form of OI is caused by different mutations in the WNT1 gene on chromosome

12q13.12. Type XV OI is characterized by early-onset recurrent fractures, bone deformity, significant reduction of bone density and short stature. In contrast to the other types of OI, some of the OI type XV patients showed severe muscle hypotonia, brain anomalies and developmental delay.
Material and Methods: Here we report a novel mutation in the WNT1 gene and the related clinical phenotype.
Results: The male patient is the second child of a consanguineous Caucasian couple who were both affected by osteoporosis and disproportional short stature. The patient was born eutrophic at term after a normal pregnancy. At three months of age, the index patient had a first femoral fracture without trauma. A computed tomography (CT) scan identified two older fractures of the clavicle and tibia. Additional fractures occurred without trauma during the following months, and bone densitometry scans revealed low bone mass. The clinical diagnosis "osteogenesis imperfecta (OI)" was established and a bisphosphonate therapy with pamidronat was commenced. However, the patient suffered further from multiple fractures (in total more than 100). His growth is severely reduced. At the age of eight months, first clinical signs of severe muscular hypotonia (e.g., recurrent pulmonary infections, desaturation at sleep, progressive dysphagia) were noticed. Due to progressive feeding difficulties, a gastrostomy tube was necessary. Because of respiratory insufficiency, mechanical ventilation via tracheostomy was required starting from the fifth year of life. The neurological development is extremely delayed, and at the age of 6, he is severely mentally retarded. Magnet resonance imaging showed progressive brain atrophy with hydrocephalus. MLPA analysis of the index patient showed two copies of the SMN1 gene and therefore no molecular hint for spinal muscular atrophy. Genetic testing by SANGER sequencing in an external laboratory was negative for mutations in the following genes: COL1A1, COL1A2, LEPRE1, TSALP, PHEX, ATP7A. Oligo-array-CGH analysis did not detect a pathological CNV. Direct sequencing of WNT1 revealed a novel homozygous truncating mutation in the index patient (c.875dupT; p.Glu293Argfs*24). The mother was heterozygous for this mutation, the father was not available for genetic testing.
Conclusion: We found a novel mutation in the WNT1 gene which leads to a severe form of OI with highly fragile bones, to brain malformations and to severe psychomental and neuromuscular disturbance. This supports the idea that homozygous mutations in WNT1 do not only affect signalling pathways that are critical for bone formation, but to a variable degree also signalling pathways involved

Nephrology

OP25

RELATIONSHIP BETWEEN MICROALBUMINURIA AND KIDNEY SCARS IN CHILDREN WITH VESICOURETERAL REFLUX

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Introduction: Vesicoureteral reflux (VUR) is one of the most common anomalies of urinary system that predisposes to recurrent pyelonephritis, hypertension, renal parenchymal scars and chronic renal failure if not managed properly. Recent studies show that microalbuminuria is a marker of glomerular damage at early stages. In adults microalbuminuria is considered as a risk factor for occurrence of nephropathy. However there is limited data in children. Purpose: to evaluate the relationship between microalbuminuria with kidney scars, creatinine clearance and severity of reflux in children with VUR.
Materials and methods: In this cross sectional study 87 children under 14 years old with VUR who referred to Children's Hospital of Tabriz/ Iran were studied from 2012 to 2013. VUR was detected by radiologic voiding cystourethrography. Urine microalbumin measurement and renal DMSA scan (for detecting scars) were performed in all patients three months after treatment of UTI. Creatinine clearance was calculated by Schwartz formula using serum creatinine and patient's height. Microalbuminuria was defined as 30-300 mg microalbumin in 24 hour urine or microalbumin to creatinine ratio of 0.03-0.3 in random urine. Relationship between variables was assessed by spss software.

Results: Average age of the patients was 4.49±2.64 years and 82.8% of patients were female. Severity of reflux was mild (grade 1-2) in 23%, moderate (grade 3) in 33.3% and severe (grade 4-5) in 43.7% of patients. DMSA scan was abnormal in 58 patients (66.6%). Microalbuminuria was detected in 19 patients (21.8%) and the amount of microalbumin was in normal range in 68 patients (78.2%). With increasing grading of reflux the amount of microalbuminuria increased and the amount of creatinine clearance decreased but they were not statistically significant (P >0.05). Urinary microalbumin in patients with scared kidney (33.32±28.69 mg) was significantly higher than patients without scar (10.82±8.83 mg) (P=0.006). Frequency of scared kidney in mild, moderate and severe grades of reflux was 50%, 62.1%, and 78.9% respectively (P=0.07). Frequency of microalbuminuria was 31% in patients with scar while only 3.4% of patients without scar had microalbuminuria (P=0.003). There was not any significant difference in frequency of microalbuminuria and scared kidney between boys and girls (P>0.05).
Conclusion: In this study we did not find any significant correlation between microalbuminuria, creatinine clearance and abnormality in DMSA scan with grading of reflux. However there was a significant correlation between microalbuminuria and presence of scar in kidney. So microalbuminuria may be considered as a marker for renal parenchymal damage.

OP26

HIGH PREVALENCE OF MORNING HYDRATION DEFICIT IN EGYPTIAN SCHOOLCHILDREN

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Introduction: Water is a vital nutrient and adequate hydration is important for the body to function properly. Children who drink too little to meet their daily water requirements are likely to become dehydrated and even mild dehydration can have negative impacts on the body. This issue is even more important in middle eastern countries where high ambient temperatures increase the risk of dehydration.
Purpose: This study is the first cross-sectional study aimed to measure morning hydration status in a large cohort of 519 Egyptian schoolchildren aged 9 to 11 years.
Materials and Methods: Children were recruited from schools in and around the city of Damanhur, Egypt. They completed, with the help of an experienced nutritionist, a questionnaire on breakfast foods and fluids intake and collected the same day a urine sample after their breakfast. Breakfast food and fluid nutritional composition was analyzed and urine osmolality was measured using osmometry.
Results: Surprisingly, more than 60% of the children skipped breakfast, leaving home without eating or drinking anything. The mean urine osmolality of recruited Egyptian children was 814mOsm/kg. 57% of the children had a urine osmolality over 800mOsm/kg, reflecting a hydration deficit and 24.7 % of children recorded high urinary osmolality, over 1000 mOsmol/kg. Furthermore, results showed that a total water intake of less than 400ml was associated with a significant higher risk of dehydration.
Conclusions: In this study, results showed that a majority of Egyptian schoolchildren arrive at school with a hydration deficit. These results highlight the fact that there is a need to educate schoolchildren about the importance of having a breakfast and adequate hydration, especially since an insufficient hydration could impact kidneys proper function in the long term.

Haematology & Oncology

OP27

HEMATOLOGICAL PARAMETERS IN TRISOMY 21 VERSUS HEALTHY CHILDREN - A COMPARATIVE ROMANIAN STUDY

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Introduction: Trisomy 21 is the most frequent autosomal chromosomopathy. The hematological anomalies are a common finding in these children.
Purpose: This study aimed to evaluate the hematological parameters of Romanian trisomy 21 patients compared to healthy children.
Material and methods: We conducted a comparative study between 136 patients with cytogenetically confirmed trisomy 21 (case group) and 140 healthy children with similar epidemiological characteristics (control group). In both groups, a blood count was performed and the hematological parameters were evaluated considering six age groups (newborn, 1 month-1 year, 1-3 years, 3-6 years, 6-14 years, 14-18 years).
Results: The mean age and sex ratio were 3 years 6 months and M/F=1.56/1 in the case group and 3 years 4 months and M/F=1.13/1 respectively in the control group. The age distribution was similar in the two groups. The mean hemoglobin was higher in the case group between 1 month and 6 years, but the mean number of erythrocytes was lower in infants and children aged 14-18 years. The mean corpuscular volume (MCV) was significantly higher between 3 and 14 years in the case group. The mean number of leukocytes was lower in infants and children aged 6-14 years, while the number of platelets was higher between 1 month and 3 years in the case versus the control group.
Conclusions: The hemoglobin did not have lower mean values in the case group, but the tendency to macrocytosis was observed between 3 and 14 years. The trisomy 21 infants and 6-14 years old children had lower leukocyte counts and the 1 months-3 years trisomy 21 children higher platelets counts than healthy children. We consider trisomy 21 children should have regular check-ups of their blood count.

Infectious Diseases

OP28

HEALTH SEEKING BEHAVIOUR OF CAREGIVERS WHOSE CHILDREN (6 -- 60 MONTHS) PRESENTED WITH SEVERE MALARIA IN A TERTIARY HEALTH INSTITUTION IN NIGERIA

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Introduction: Early recognition of symptoms of malaria and commencing appropriate home-based treatment or seeking for prompt treatment in health facility is one of the recommended malaria control strategy under the Roll Back Malaria Initiative. This strategy aims at reducing malaria morbidity and prevention of mortality in under-fives. The success or otherwise of this strategic plan in malaria control depends on health seeking behaviour of caregivers of these children.
Purpose: To document health seeking behaviour of caregivers whose children (6 -- 60 months) presented with severe malaria in a tertiary health institution.
Materials and methods: This was a descriptive cross-sectional study carried out from July 2012 -- June 2013. Appropriate health seeking behaviour included seeking for prompt treatment in health facility within 24 hours of on-set of severe malaria symptoms or presentation in health facility within 48 hours with symptoms of severe malaria while on home-based treatment. Features of severe malaria were

identified using the World Health Organization criteria. Data was obtained by researcher-administered questionnaire, and malaria was confirmed in each child by microscopy following standard protocol. Analysis of data was done using the Statistical Package for Scientific Solution version 16.0.
Results: Of the 120 caregiver (31.4±7.0 years) /child pairs (24±14.7 months) recruited, 35(29.2%) caregivers had appropriate health seeking behaviour. Of the 85(70.8%) caregivers with poor health seeking behaviour, 82(96.5%) inappropriately managed malaria at home by administering wrong malaria medications given in most cases at incorrect dosages, while 3(3.5%) did nothing during the illness (p = 0.003). Appropriate health-seeking behavior did not significantly depend on level of education of the caregivers (p = 0.17). Most common place for home-based care was the patent medicine vendour in 65/82(79.3%) cases while 20.7% was from neighbours and traditional doctors. Mortality rate observed in this study was 150 per 1000; of which 94.4% were children whose caregivers had poor health seeking behaviour (p = 0.02).
Conclusions: Health education on appropriate malaria care should be intensified for caregivers and other community-based healthcare providers such as the patent medicine vendours.
Key words: behaviour, care, health, home-based, malaria, treatment

Endocrinology

OP29

THE RELATIONSHIP BETWEEN OBESITY AND CAROTID EXTRA-MEDIAL THICKNESS IN CHILDREN AND ADOLESCENTS

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Carotid extra-medial thickness (cEMT) is an early manifestation of the development of atherosclerosis in children and adolescents. In this study we investigated whether there is a relationship between cEMT and obesity.
Methods: The study included 38 obese patients aged between 7 and 18 years and whose body mass index (BMI) was above the 95th centile for age and gender; 18 of them were male and 20 female. Thirthy healthy subjects with a BMI below the 85th centile were chosen as the control group.
Results: In the patients the medians of the following variables were significantly different from controls: BMI (28.8±3.0 vs 18.1±2.2), total cholesterol (167.9±34.8 vs 150.5±28.1), high density lipoprotein (41.6±6.5 vs 49.5±7.5), triglycerides (119.6±54.7 vs 87.3±30.1), alanine aminotransferase (23.5 vs 15), serum insulin (22.1 vs 7.6), homeostatic model assessment of insulin resistance (HOMA-IR) (4.3 vs 1.7), and cEMT (0.74±0.11 vs 0.64±0.1). There was a significant correlation between HOMA-IR and cEMT (r=0.34, p=0.037). The only independent risk factor affecting cEMT was HOMA-IR (p=0.015).
Conclusions: Obesity was related to hepatotoxicty, dislipidemia, insulin resistance and increased cEMT in children and adolescents. Only the insulin resistance was found to affect cEMT which has a close association with atherosclerosis. For this reason, we advise that, early preventive measurements for obesity may help to prevent future complications and if insulin resistance develops, cEMT values should be evaluated.

Specifications	Obese individuals (n=38)	Control (n=30)	p
Gender (M/F) (n)	20/18	12/18	0.45
Age (years)	11.9±2.1	12.8±2.5	0.26
Weight (kg)	65.1±13.3	41.6±10.0	<0.001
Height (cm)	149.3±10.8	151.1±13.2	0.54
BMI	28.8±3.0	18.1±2.2	<0.001
cEMT (mm)	0.74±0.11	0.64±0.1	<0.001
Blood glucose (mg/dl)	92.8±3.8	90.9±7.1	0.21
Insulin (IU/l)	22.1 (6.2-77.3)	7.6 (2.6-10.8)	<0.001
HOMA-IR	4.3 (1.2-20.2)	1.7 (0.5-2.4)	<0.001
AST (IU/l)	23.4±10.4	21.4±5.4	0.34
ALT (IU/l)	23.5 (6-117)	15 (8-33)	<0.001
HDL (mg/dl)	41.6±6.5	49.5±7.5	<0.001
Total cholesterol (mg/dl)	167.9±34.8	150.5±28.1	0.029
Triglyseride (mg/dl)	119.6±54.7	87.3±30.1	0.005

Children's Environmental Health

OP30

AN ASSESSMENT OF HEALTHFUL SCHOOL ENVIRONMENT IN ENUGU EAST NIGERIA

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Introduction: A school is a place for learning and teaching especially children. Children spend a significant portion of their early and formative lives in school. It is imperative therefore that the school environment be safe and healthy. There is paucity of reports on the healthfulness of school environment in Enugu Nigeria. Purpose: The aim was to assess the healthfulness of the environment of primary schools in Enugu East Nigeria.
Materials and Methods: Thirty three out of the 217 primary schools in the local government area were assessed. Using a ratio of 1:3, 25 private and 8 public primary schools were sampled. The healthful school environment section of the School Health Evaluation scale (developed by Anderson and Cresswell and adapted by Akani for use in Africa) was used to assess the schools and scores awarded accordingly. Data analysis was done using SPSS version 17 for Windows. Statistical significance was set at p value < 0.005.
Results: Twenty nine schools (5 public and 24 private) had access to some form of water supply -- 6 pipe borne water, 3 commercial water vendors, 24 well water, one public school uses stream water. The mean scores for public and private schools were 3.37 and 5.76 (p = 0.04). One public school had an incinerator, 11 dump their refuse openly while 21 bag their refuse for disposal by the waste management authority. Twenty nine had sewage disposal structures while 4 didn't. Only 3 of the 5 toilets found in the public schools were functional. All the public schools were adequately ventilated while only 45% of the private schools were adequately ventilated. The public schools were all adequately lit while only 52% of private schools were adequately lit. There was no fire alarm in any school. The mean score for public and private schools out of a maximum of 66 was 31.25 and 37.56 respectively (p = 0.03). The mean for both public and private schools was 36.03 +/- 7.38 at a test value of 57 (p = 0.001).
Conclusion: The school environment of primary schools in Enugu East Nigeria in unhealthy. The private schools had comparatively healthier school environment.

Cardiology

OP31

BLOOD PRESSURE IN CHILDREN: ROLE OF HIGH ALTITUDE?

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Introduction: There is controversy about the role of high altitude in blood pressure.
Purpose: We aimed to evaluate the blood pressure of children aged 6 to 18 years who permanently lived at sea level in Al ain (n=417), United Arab Emirates (UAE) and Himalayan mountain villages in Pakistan (altitude: 3000 m, n=372).
Materials and Methods: Population-based samples of children and adolescents were selected from Himalayan mountain villages of Pakistan and UAE as part of a global health project for non-communicable disease prevention. Same anthropometric scales and automated blood pressure monitors were used by trained nurses to measure systolic blood pressure (SBP) and diastolic blood pressure (DBP).
Participants were classified as being Overweight was defined as having a BMI percentile of ≥85th and <95th percentile, and obesity was defined as being ≥95th percentile using CDC growth charts. Prehypertension was defined as having a SBP or DBP reading that was ≥90th percentile to <95th percentile, and hypertension as having an SBP or DBP ≥95th percentile, according to the National Heart, Lung, and Blood Institute age-, gender- and height-specific guidelines. Results: Participants were similar with respect to age in UAE (11.2 years, 55.1% boys), and Himalayans (11.1 years, 51.6% boys). A higher proportion of children in UAE were overweight (15.5%) and obese (13.1%) as compared to Himalayans (2.2% overweight and 3.0% obese). Mean SBP was significantly higher in Himalayans than in the children living in UAE (112.1 ±12.1 vs. 107.0 ±11.8, respectively, $p<0.001$). Similarly mean DBP was significantly higher in Himalayans than in the children living in UAE (70.2 ±15.2 vs.62.2 ±8.8, respectively, $p<0.001$). A higher proportion of Himalayans had prehypertension (24.7%) and hypertension (15.1%), respectively, compared to their counterparts in UAE (9.7% with pre-hypertension and 3.9% with hypertension.
Conclusion: A difference of 3000 m in altitude was associated higher SBP and DBP in children aged 6 to 18 years.

Breastfeeding

OP32

A 'NEC FREE NICU' THROUGH BREASTFEEDING QUALITY IMPROVEMENT PROJECT (QIP)

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Introduction: Breastfeeding offers the best nutritional support for newborn babies. Value of breast milk in reducing the incidence necrotising enterocolitis (NEC) among premature infants admitted to neonatal intensive care units (NICU) has been reported. Ireland has one of the lowest breastfeeding rates in developed world and pursuing quality improvement projects (QIP) aimed at improving breast milk use among premature infants could be challenging.
Purpose: We aimed at, 1. Improving breast milk exposure of extremely low birth weight (ELBW) infants in NICU from 80% to 100% over a two year period and that among very low birth weight (VLBW) infants from 60% to 80% during the same period, 2. Reducing the incidence of NEC in our NICU to a level below that reported by other network centres in Ireland benchmarked in Vermont Oxford Network (VON), and 3. Improving breastfeeding culture of our unit by ensuring the sustainability of QIP.

Material & Methods: A quality improvement project was commenced in January 2011 with clear aim statement, timelines as well as agreed and quantified written goals. 'Primary and secondary drivers' were established and PDSA cycles initiated for demonstrating 'small improvements' and getting 'buy-in' from Medical & Nursing staff as well as parents of premature infants. WHO definition for mother's own milk & donor human milk (DHM) and modified Bell stage 11A or above for NEC were the denominators. Project was conducted in the tertiary NICU attached to University Maternity Hospital Limerick, Ireland with an in-birth rate of 5,000 per year. Approval of the hospital Audit committee was obtained. During the project senior medical & nursing teams of the unit as well as major clinical guidelines remained unchanged. Result of study was analysed with SPSS® version 18 statistical software. Results: In a country with a low National breastfeeding rate, we have demonstrated that 100% breast milk exposure to ELBW and 80% uptake by VLBW infants could be established through a QIP. For the first time in the history of our unit we had no NEC in 2013 and the information is now uploaded to Vermont Oxford Network (VON). Our post-QIP staff surveys shows evidence of sustainability of the project.
Conclusions: Through the adaptation quality initiatives breastfeeding rates among premature infants could be optimised, even in countries with traditionally low breastfeeding rates. Such low-cost interventions could significantly improve morbidity among premature infants, perhaps more than generally appreciated, as evidenced by our NEC free tertiary unit.

Adolescence Medicine

OP33

AN OVERVIEW ON LEBANESE ADOLESCENT LEARNING DIFFICULTIES

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Introduction: Adolescents need special attention on all levels: physical, social and psychological. School failure is a multifactorial problem due to sociological, familial, economical, psychological and ethical aspects. Nowadays, factors hindering the learning process are serious problems in the heart of debate. Accordingly, the purpose of our study was to identify such factors.
Methods: The investigation was multi-regional, randomized, controlled and powered by Geovision statistical company. We collected data through a questionnaire which was distributed to 181 adolescents in schools of Lebanon aged between 13 and 17 years. A sample of 100 adolescents was selected randomly among 181cases collected.
Results and discussion: Out of 53 boys and 47 girls, 30.2% boys and 27,7% girls had learning difficulties . The total academic difficulties from both sexes were 29%. Variables showing a significance were suicidal thoughts ($p = 0.03$) and the lack of school sports ($p = 0.00$)
This study provides a valuable pillar to elaborating laws concerning grade repetition and organizing national and international educational systems. This is further of great interest to policy makers in the field of education. Here, the role of the pediatrician is essential in detecting suicidal thoughts and lack of sports. **Conclusion:** The teenager who does not participate in school sports and has suicidal thoughts, has learning difficulties. Our main concern would be to investigate all age groups, then to study the importance of school problems and to introduce a new educational reform in Lebanon.In this context, a pediatrician must consider the adolescent as a whole entity made of a psychological as well as a physical aspect to prevent school difficulties.

Sports Medicine

OP34

FEASIBILITY AND PRACTICALITY OF THE PAEDIATRIC GAIT, ARMS, LEGS AND SPINE EXAMINATION IN DETECTING MUSCULOSKELETAL ABNORMALITIES IN MALE EMIRATI ADOLESCENTS

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Introduction: Injury prevention is vital to adolescents aiming to reap the physical, mental and social benefits associated with participation in physical activity and sport. Musculoskeletal injuries (MSI) are common in physically active adolescents during periods of biological maturation and growth. The presence of anatomical abnormalities, such as flat feet (pes planus) and spinal curvature disorders (scoliosis and kyphosis), increase the likelihood of adolescents sustaining a MSI during school- or leisure-time physical activity. Consequently, the early detection and proactive intervention of underlying anatomical abnormalities is necessary for the prevention of MSI that may limit engagement in physical activity during adolescence.

Purpose: The aim of this study was to explore the feasibility and practicality of a musculoskeletal screening examination in Arabic speaking male Emirati adolescents in the United Arab Emirates.

Materials and Methods: The paediatric Gait, Arms, Legs and Spine (pGALS; Foster, H.E. Arthritis Rheum.2006; 55: 709-16) is a simple, quick screening examination designed to be used by non-specialists working in paediatric musculoskeletal medicine to detect locomotor abnormalities and functional disabilities in adolescents. The pGALS has been validated in school-aged children in the United Kingdom, Malawi, and Peru. All first year male adolescents (n=497; age 14.0 ± 0.2 years) attending a week day residential school in the United Arab Emirates completed the pGALS screening examination over a two year period (2010-2012). During the initial pGALS assessment, physiotherapists rated the appearance and movement of the gait, arms, legs and spine as either normal or abnormal, and then 'red flag' cases were referred to the sports medicine consultant for further examination. This study had full ethical approval.

Results: The pGALS screening revealed that 48% of participants were classified with mild-to-severe pes planus, 4% with mild-to-moderate scoliosis, 3% with genu valgum, and 2% with moderate-to-severe kyphosis. Abnormal cases attended specialist prehabilitation exercise classes that focussed on reducing the negative effects of the abnormality and facilitating the functionality of the condition.

Conclusions: The pGALS proved to be a practical and effective screening tool that permitted the efficient clinical assessment of the musculoskeletal system in male Emirati adolescents. Screening of first year high school students may be beneficial for long-term injury prevention in adolescents, particularly for obese students and cases with underlying musculoskeletal abnormalities.

POSTER PRESENTATIONS

Adolescence Medicine

PP001

VOLUNTARY INTOXICATION WITH TOPIRAMATE IN A FEMALE TEENAGER WITH PARTICULAR SIDE-EFFECTS AND LONG-TERM CONSEQUENCES

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Introduction: In pediatric practice topiramate is used alone or with other medicines to treat certain types of seizures and to prevent migraine headaches in adolescents 12 years and older.
Case report: A14 years-old female was admitted into the ER Unit after voluntary ingestion of 30 capsules (3000 mg) of topiramate. The drug was prescribed by her neurologist for migraines; the suicidal attempt was determined by a conflict with her mother. At admission she had dizziness, drowsiness, speech disturbances, abnormal coordination, vomiting and abdominal pain. Laboratory data showed severe anemia (Hb=4,3 g/dl), normochrome and normocytic, severe metabolic acidosis(HCO3 - = 6,6 mEq/L), hypoglycemia (37 mg/dl), hypercloremia(Cl-=121,7 mEq/L), hypernatremia (Na+= 150 mEq/L),hypokalemia (K+ =1,71 mEq/L). The treatment included gastric lavage, activated charcoal, intravenous fluids, bicarbonate and blood transfusions. The clinical status improved within 24 hours, Hb level raise to 13,8 g/dl and no other laboratory abnormalities were found. The medical records of the patient showed she has no anemia previously. A CT scan performed in order to exclude an organic cause for her headaches was normal. The patient was dismissed after 10 days in good general condition; she presented mild epigastric pain and leave the hospital with PPI and pshychologic counceling recommendations. Subsequently she had several hospitalisations for depression and suicidary thoughts treated with sertraline and she is followed by a pediatric psychiatrist.
Conclusions: This is a particular case of voluntary topiramate intoxication with particular side effects as severe anemia and metabolic disturbances, followed by long-term behavioral consequences.

PP002

ALCOHOL AND DRUG INTOXICATIONS IN ADOLESCENTS ADMITTED TO PAEDIATRIC CENTRES IN THE CZECH REPUBLIC

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We conducted retrospective, multi-centric analysis of alcohol and drug intoxications in adolescents, admitted to inpatient treatment to paediatric hospitals throughout the Czech Republic. We reviewed more than two thousand cases, indicating the severity of this risk behaviour in Czech adolescent

population. The incidence of hospital admission for alcohol intoxication increased throughout the examined period or five years (2006-2010) by 22%, the majority of them boys, however, the proportion of girls increased in that period from 42% to 45%. When analysing the circumstances of the alcohol intoxications, we noted that 25% of them got drunk in a restaurant or another public place where alcohol is legally served (club, disco, ballroom), 48 alcohol intoxications occurred directly in school, school dorm or during a school trip. The most frequent illicit drug intoxication was with cannabinoids, often accompanied by a syncope or other kind of short-term state of altered consciousness. Counselling the adolescent at risk of developing alcohol abuse is a challenge for the whole paediatric public. Moreover, a strict enforcement of current laws aimed at restricting the access to addictive substances is warranted.

Allergy- Immunology

PP004

PREVALENCE OF ALLERGIC RHINITIS IN CHILDREN'S POPULATION -- ADJARA REGION

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Allergy and allergic diseases comprise the global problem of public health care all over the world. In general structure of allergies' morbidity share of allergic rhinitis is quite high. Its prevalence in children's population varies within 15-25% (ARIA). All the above determined the goal of our work.
Goal: goal of our work is study of prevalence of allergic rhinitis in children's population of Adjara Region. Materials and methods: for the first stage of study we developed the questionnaire. Studied population included 1237 children from 4 to 15 years age (511 girls and 726 boys). Screening was conducted by means of the initial questionnaire oriented towards first diagnostics of allergic rhinitis. Second stage included clinical-allergic study. This stage included also study of IgR level in blood serum and prick-test in vivo (included food, plants, epidermal and domestic allergens). Data processing was provided by means of SPSS9v12.5 software package. Results: first stage of the study showed that of symptoms of allergic rhinitis 9.8% of the studied population had sneezing, 14.5% - rhinorrhea, 13.9% -- nasal obstruction, 15.55% - nasal itch and the mentioned symptoms, in 4.5% of cases were accompanied with lacrimation and eye itch. Respondents with AR symptoms (236) indicated seasonal nature of the disease. At the second stage of study, on the basis of the frequency, characteristics and set of clinical signs, in 56.7% of patients intermittent and in 43.3% of patients - persistent allergic rhinitis was diagnosed. Prevalence of symptoms was reliably higher among the boys, compared with the girls ($p<0.05$).
Conclusion: epidemiological study of allergic rhinitis in children's population of Batumi, Adjara, showed that AR prevalence was 15.3%, rarely with accompanying conjunctivitis (4.5%). High frequency of late diagnostics was identified ($p<0.001$). On the basis of the frequency of AR identification, characteristics and set of clinical signs intermittent and persistent allergic rhinitis, with medium and light severity was diagnosed. Development of allergic rhinitis is greatly dependent on seasons, presence of animals in the apartment, allergic reactions in anamnesis, dust collectors in the apartment and heritage ($p<0.05$).

PP005

ASPLENIA IN CHILDREN WITH CONGENITAL HEART DISEASE AS A CAUSE OF POOR OUTCOME

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Introduction: The absence of a spleen is a well-known risk factor for severe bacterial infections, especially due to encapsulated bacteria. Congenital asplenia can be part of multiple congenital

abnormalities as in heterotaxy including Ivemark syndrome with congenital anomalies of the heart or great vessels or it can be isolated, which is extremely rare.
Purpose: In these cases, asplenia is an important factor effecting mortality. In this report, clinical courses of five children with asplenia and concomitant minor or complex cardiac anomalies were presented.
Materials and Methods: The ages of the children ranged between 1,5 and 17 months at the time of diagnosis. Three of the patients were male and two of them were female. All of the cases had the history of hospitalization for infectious diseases before the diagnosis. The patient who was diagnosed at 17 months old had the history pneumonia, urinary tract infection and bacterial meningitis beginning from five months old.
Results: Three children had complex cardiac anomalies, one child had ventricular septal defect and one child had patent foramen ovale. One of the children with complex cardiac defects had additional anomalies as unilateral renal agenesia and syndactili. Howell-Jolly bodies were determined in peripheral blood smear in all of the patients. The diagnoses of asplenia were confirmed with spleen scintigraphy. One of the patients with complex cardiac anomalies died after a short time from diagnosis, because of cardiac failure. The rest of the four patients were vaccinated for encapsulated bacteria and were taken under antibiotic prophylaxis. These children did not necessitate hospitalization for infection diseases during the follow-up period (5-40 months).
Conclusions: Asplenia can be accompanied by major or minor cardiac anomalies. The existence of Howel-Jolly bodies in peripheral blood smear is useful for determining asplenia in the patients with cardiac anomalies. In asplenic children, early diagnosis, antibiotic prophylaxis and immunization for encapsulated bacteria, can decrease the risk of morbidity and mortality.

PP006

MERE TRUISM: ANDROGENS FOR ESTROGENIC DISORDER!

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Introduction: Estrogen-dependant (type III) is a peculiar form of hereditary angioedemas -HEA- In limited ressource countries, basic and etiopathogenic oriented treatment could be a safe, cheap and effective therapy.
Case presentation: A teen of 14 years is recognized as having the very rare type III hereditary angioedema "Wait and See" attitude was initially beneficial, but further severe attacks led to a long-term prophylaxis. As several recent pharmacological treatments were not available, we started Danazol at 200 then 400 mg / day with an excellent prevention profile: only mild labial swellings and no more severe edemas for more than 9 months... Close monitoring of hepatic functions and virilizing is conducted.
Discussion: The most distinguishable features of the uncommon type III HAE is the serological phenotype (normal C4, normal C1 INH level and function; Factor XII gene mutation was reported in only 20% of patients) and chiefly the clinical phenotype i.e.estrogen-dependent Different therapies are available, but cost and availability are do guide management. Treatment of type III HAE can be categorized as treatment of attacks (on-demand treatment) and prophylactic treatment (short term and long term). Both options were used in our case with a dramatic response to the attenuated androgen.
Conclusion: Prophylactic treatment with Danazol of all types of hereditary angioedema ,in both males and females, is well documented...but seems a real (and effective!) truism in such estrogenic forms.

Breastfeeding

PP007

ZINC AND COPPER CONCENTRATIONS IN BREAST MILK DURING THE FIRST NINE MONTHS OF LACTATION: A LONGITUDINAL STUDY

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Introduction: A wide variation in the composition of breast milk has been reported from various countries.
Purpose: The aim of this study was to evaluate zinc (Zn) and copper (Cu) concentrations in breast milk of lactating mothers in the function of lactation time and the relationship between these concentrations and the characteristics of mother infant dyads.
Methods: Mother infant dyads were recruited immediately at the 2nd week postpartum. Inclusion criteria were as follows: 1) gestational age>=37 wk, 2) birth weight>=2500 g, 3) no chronic illness in the infant and mother. Antropometric measurements of mother infant dyads were taken. Maternal hemoglobin was measured at the 2nd week and 4th month postpartum. The samples of human milk were collected postpartum at the 2nd week, the 2nd month, the 4th month and the 9th month postpartum. Zinc and copper concentrations were determined by atomic absorption spectrophotometer. Data was presented by the mean and standard deviation.
Results: The average concentrations of Zn and Cu (n=172) were 4.84 +/- 2.24 mg/L and 452 +/- 129 microg/L, respectively, at the 2nd week. There was a correlation between Zn and Cu concentrations at the 2nd week. There was a significant reduction ($P<0.05$) in zinc and copper contents during the postpartum 4 months [n=108, 4.88 +/- 2.40 mg/L and 453 +/- 123 mg/l microg/L at the 2nd week, 2.42 +/- 0.90 mg/L and 298 +/- 233 microg/L, respectively, at the 4th month of lactation]. The average concentrations of Zn and Cu (n=69) were 1.43 +/- 0.85 mg/L mg/l and 556 +/- 350 microg/L, respectively, at the 9th month. No significant relationship was found between concentrations of Zn and Cu in human milk and evaluated parameters such as sex, weight, height, head circumference of infants and maternal age, height and body mass index, parity, birth interval. The average concentrations of breastmilk Zn at the 2nd month postpartum was found significanly higher in mothers having history of gestational anemia than that having no anemia (3.60+/-1.22, 3.16+/-1.30 mg/L, respectively, p=0.043). At the 2nd week postpartum, maternal hemoglobin was negatively corelated with breastmilk Cu concentrations (n=167, r=-0.119, p=0.010). At the 4th month postpartum, maternal hemoglobin was negatively corelated with breastmilk Zn concentrations (n=107, r=-0.225, p=0.020). The average concentrations of breastmilk Zn at the 4th month postpartum was found significanly lower in mothers taking iron supplementation during postpartum period than that having no supplementation (1.21+/-0.65, 1.67+/-0.98 mg/L, respectively, p=0.025).
Conclusion: Concentration of Zn and Cu in breast milk decreased as lactation continued. Maternal anemia and iron suplementation could influence milk Zn and Cu status. Further studies should be done to clarify this effect.

PP008

THE FACTORS THAT AFFECT LONG-TERM BREASTFEEDING FORM DATA ANALYSIS OF DEMOGRAPHIC HEALTH SURVEY IN TURKEY

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Introduction: The World Health Organization (WHO) recommends breastfeeding for up to 2 years of age or beyond and there is no age limit for cessation of breastfeeding according to American Academy of Pediatrics policy statement. Continued breastfeeding at the first year is one of the core indicators for assessing global infant and young child feeding practices.
Purpose: The study aims to determine the frequency of breastfeeding after 12 months (long-term breastfeeding) according to some infant and maternal characteristics and to investigate the effects of long breastfeeding on nutritional habits and growth status of children in the national data.
Methods: The sample included 1666 children aged 12 to 35 months from the Turkey Demographic and Health Survey. Maternal parameters included age, highest education level attained, occupation, speaking tongue, smoking status, contraceptive methods, health insurance, type of wedding, presence of bride price, parity, anthropometric data, paternal occupation, family type, family size, family wealth index, residence and region. Children parameters included age, gender, preceeding birth interval, presence of antenatal care, birth place, birth weight, birth order, duration of breastfeeding, infant feeding practices, use of bottle with a nipple and anthropometric data. Infants' breastfed more than 12 months of age (long-term breastfeeding) were included in "BF12" group. Statistical analyses were done in weighted data. The differences in rates of BF12 were analysed by univariate logistic regression. Predictor variables that had a significant relationship with the dependent variable (BF12) at the $P < 0.10$ level were selected for inclusion in the multivariate logistic regression model.
Results: Only 55.9% of children were breastfed beyond 12 months. The rates of long-term breastfeeding were higher in mothers with high birth order, long preceeding birth interval, religious wedding, usage of traditional contraceptive methods, mothers aged 30-34 years and overweight mothers, and however the rates were lower in the mothers with tobacco exposure and bottle-fed infants. Long-term breastfeeding didn't change the consumption of plain yogurt, solid foods and semi-solid foods, however, it decreased intake of bottled milk and fruit juice. The rates of long-term breastfeeding were similar in the cases with undernutrition and the cases with normal growth status.
Conclusion: Long-term breastfeeding was related to some maternal and infant characteristics however, it didn't affect consumption of complementary food. Breastfeeding promotion programs should necessitate some targeted interventions for younger, primiparious and smoking mothers.

PP009

BREASTFEEDING AND MATERNAL HEALTH-RELATED QUALITY OF LIFE

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Introduction: Various studies have expressed effect of breastfeeding on children health. One component of social health is the quality of life.
Purpose: This research compared the health-related quality of life of mothers who breastfeed their infants and who feed their infants by infant formula.

Methods and Materials: 161 infertile women living in Tehran who gave their first childbirth to just one baby after infertility treatment were entered into the study at the end of the second month after delivery. Among which, 129 women breastfed their infants while 32 women fed their babies by infant formula. The short form Health-related quality of life questionnaire, i.e., SF-36, was distributed among mothers. And the results were analyzed using SPSS 13.
Results: Maternal mental health for both breastfeeding and infant formula feeding groups showed no significant difference (P =0.15); however the two groups were significantly different in terms of physical health (P < 0.05). Physical health of mothers who were breastfeeding their infants was better than the other group. Conclusion: The results of this study show that breastfeeding has a relationship with the physical health and quality of life of mothers. The findings suggest that health-related quality of life improves in women who breastfed their infants.
Keywords: Quality of life, FS-36 questionnaire, Breastfeeding

PP010

SHIFTED FROM EXCLUSIVE FORMULA FEED TO EXCLUSIVE BREASTFEED (RELACTATION)
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This case study demonstrate the possibility of return back to breastfeeding after terminate it and shifted to formula feeding .the focus is a male child who is 60 days old healthy ,had a weight of 4 kg ,attended for 2 months vaccine ,exclusively formula feed . Breastfeeding given in the first 2 weeks of life then terminate it and was replaced by formula feeding.
At that visit mother and baby was assessed for possibility of return back to breastfeeding (relactation), mother milk expressed around 1ml coming out ,baby brought to breast with good latch on .successful tips in breastfeeding include hand expression and translactation were taught to the mother by a lactation consultant and no galactagous prescribed . Follow up after 2 months exclusively breastfeeding with history of gradually increase breastfeed and decreasing formula feed within 2 months period, exclusive breastfeeding continue until age 6 months then complementary feeding was introduced.
Currently he is 10 months on complementary feeding and continue breastfeeding with a good health and within normal centiles of growth.
Key words : breastfeeding ,formula feeding ,translactation ,relactation

Cardiology

PP011

HOLTER ECG MONITORING IN CHILDREN WITH EXTRASYSTOLIC ARRHYTHMIA.
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Aim: To study the frequency and structure of violations of a rhythm and conductivity of heart at children with premature warm reduction.
Materials and methods: 115 children with extrasystols at the age of 7-15 years Holter monitoring of the electrocardiogram was carried out. Girls was -- 54 (46,9%), boys -- 61 (53,1%).
Results and discussion: The average heart rate (HR) at children with a supraventricular extrasystol fluctuated from 60 to 100 in min. in 85,7% cases, the minimal HR- from 45 to 75 beats/min at all children of this group, of them at 4,3% of patients HR was 45 beats/min. The maximum HR fluctuated from 100 to 140 beats/min in 71,4% of cases, and in 28,6% - HR reached 170 beats/min; increase of HR were noted during the periods of the maximum physical and mental activity of children -- in 17-19 hours. Insufficient decrease in HR in the period of a night dream were observed at 25,5% of patients with the mixed and sympathymymetic type of a syndrome of vegetative dystonia. A number of children (26,9%) at which on a usual electrocardiogram were registered only rare extrasystols at 24-hour monitoring were registered

frequent extrasystols. Difficult violations of a rhythm of heart are revealed at 61,7% of children with an extrasystols. By politopic extrasystols, registered in one stage in one heart cycle, were revealed at 37,7% of patients with a supraventricular extrasystol. They were more often found in couples in the form of mono - and/or the politopic extrasystols mainly in children with an initial vagotoniya, and also with paroxysms of atrial tachycardia from 120 beats/min to 170 beats/min, lasting from several seconds about several minutes. In half of cases distribution extrasystols was uniform within a day, i.e. wasn't revealed essential influence of the periods of a dream and wakefulness on arrhythmia frequency, and only in one third of cases at a supraventricular extrasystol mainly "night" type of an extrasystol is revealed. At one child type R on T, i.e. on gradation of B.Lown -- belonging to the V class (in days one extrasystol) was registered. The slipping-out typical complex is revealed at 5,2% of children. Thus, HM ECG allows to find passing violations of a heart rhythm and the conductivity, not revealed on a usual electrocardiogram Summary. The analysis of results of Holter monitoring of an electrocardiogram at children with premature heart reduction is carried out.

PP012

CARDIAC INVOLVEMENT IN NEUROFIBROMATOSIS 1

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Neurofibromatosis (NF) 1 is a multisystem disorder, affecting primarily the skin, nervous and musculoskeletal systems. It is characterized by cutaneous findings, such as café-au-lait spots and freckling, by skeletal dysplasias, and by the benign or malignant nervous system tumors. Cardiovasculer system is rarely involved. Congenital heart defects, cardiomyopathy, renal artery stenosis, hypertension are main clinical features of cardiovascular involvement in NF1. Mitral valve prolapse (MVP) is usually seen in Marfan syndrome, Ehlers-Danlos syndrome and mucopolysaccharidosis. NF 1 overlaps with MVP is very rare. The patient was referred our clinic because of heart murmur. And she had café-au-lait spots on her skin (Figure 1), scoliosis (Figure 2), mid-to-late systolic click at the apex, late systolic 2/6 murmur and mild mental retardation on her physical examination. Echocardiogram revealed that mitral valve prolapsuse and mitral valve insufficiecny (Figure 3). We aimed to present this case because of cardiovasculer diseases overlap with NF is a rare condition.

Figure 1: Café-au-lait spots on trunk

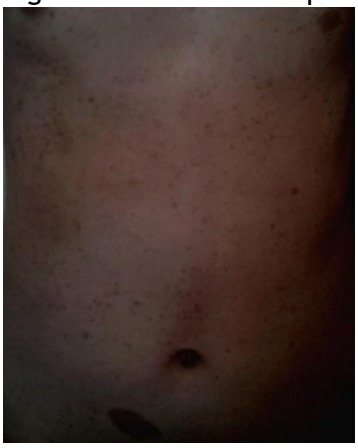
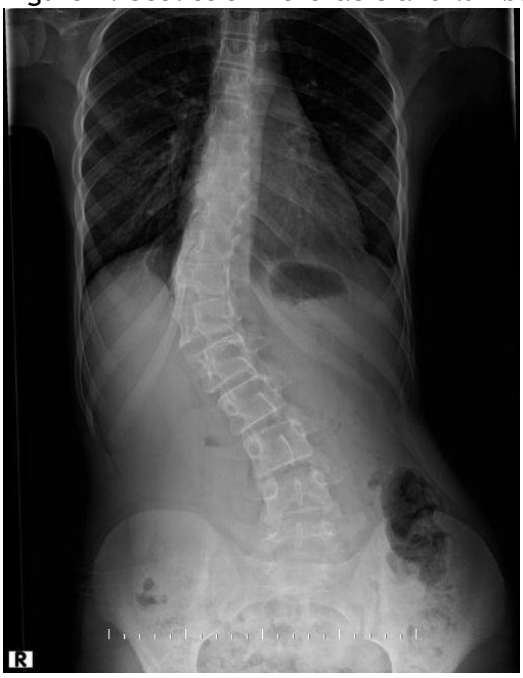
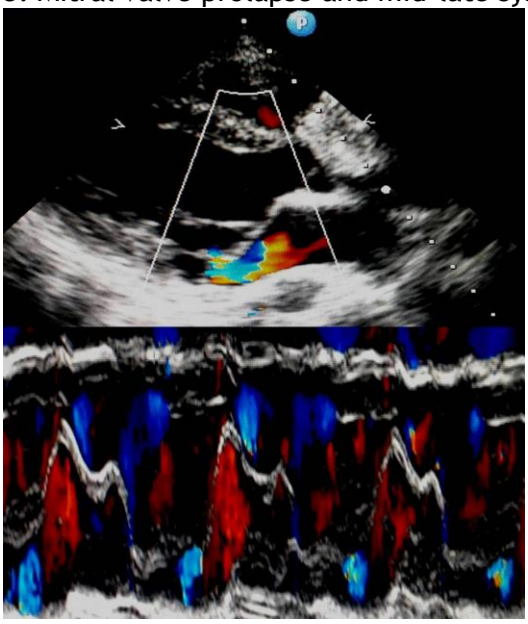


Figure 2: Scoliosis in thoracic and lumbar spine Figure



3: Mitral valve prolapse and mid-late systolic mitral insufficiency on echocardiography



PP013

AN ASYMPTOMATIC PATIENT WITH ISOLATED CONGENITALLY CORRECTED TRANSPOSITION OF THE GREAT ARTERIES AND COMPLETE ATRIOVENTRICULAR BLOCK

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Corrected transposition of the great arteries (CTGA) is a rare congenital heart disease. CTGA occurs in 0.5% of patients born with congenital heart disease. Other congenital heart defects commonly accompany this anomaly. Prognosis depends on systemic ventricular function, anomalies of conduction system and accompanying anomalies. The patient was referred us because of cardiac murmur. Physical examination revealed that, bradycardia and 2/6 holosystolic murmur was heard at the tricuspid origin. He was diagnosed when he was 17 days old, but his parents ignored it because he had been asymptomatic until now. Electrocardiography revealed that high-degree AV heart block, heart rate was 66 beats per minute, there was Q wave in V1 but absent in V5-V6 (Figure 1).
Transesophageal echocardiography showed corrected transposition of the great arteries and tricuspid regurgitation (Figure 2-3).
We aimed to present this case because of; corrected transposition of the great arteries without associated intracardiac anomalies is a very rare condition.
This case was interesting also since the patient is now 11 years old but has suffered no symptom so far.

Figure 1: High-degree AV heart block, heart rate was 66 beats per minute, there was Q wave in V1 but absent in V5-V6 on electrocardiography.

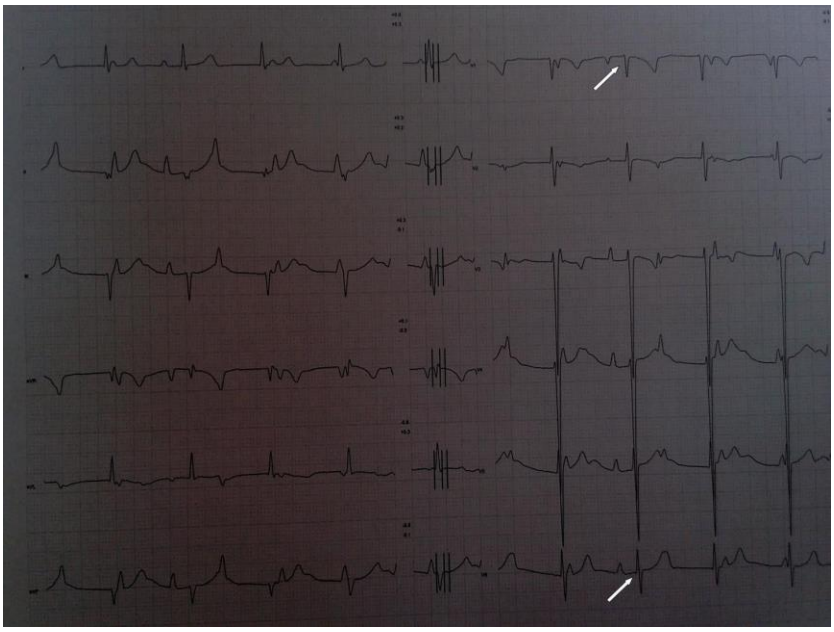


Figure 2: In the apical four-chamber view of transthoracic echocardiography, ventricular inversion (atrioventricular discordans) is viewed, the LA isconnected by the left atrioventricular valve (tricuspid valve) to the left-sided morphologic RV and the RA is connected by the right atrioventricular valve (mitral valve) to the right-sided morphologic LV. The tricuspid valve, which has a more apical attachment to the ventricular septum than the mitral valve (A). In the parasternal short-axis scan, the great arteries are imaged a double circle. The anterior artery (aorta) is anterior to and left of the pulmonary artery and which arises from the left-sided morphologic RV (B).

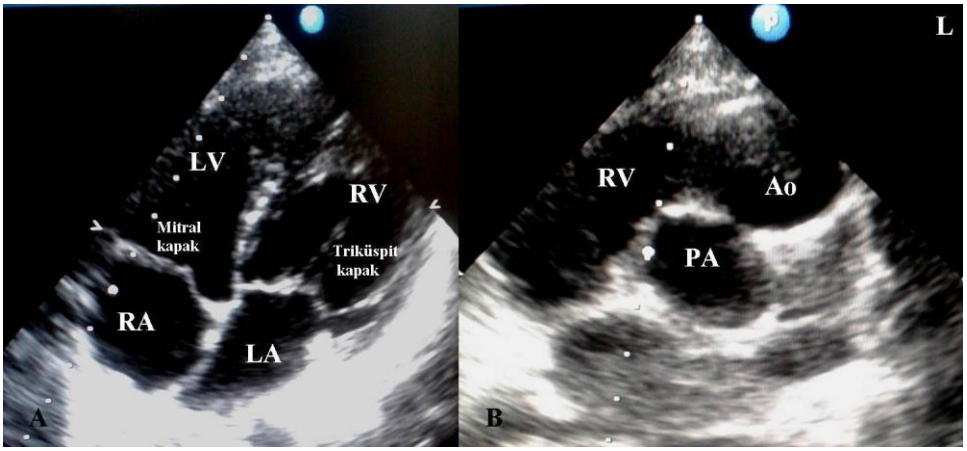
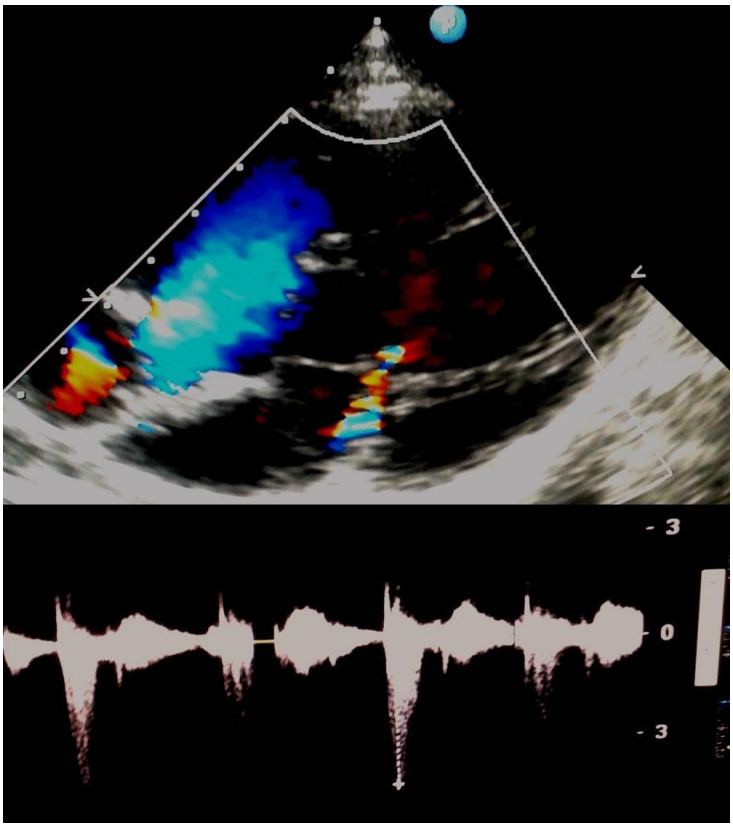


Figure 3: On transthoracic color Doppler echocardiography, cardiac arrhythmia and first degree regurgitation (4.5 m/sec) of the left atrioventricular valve (tricuspid valve) is viewed.



Child Mental Health/ Psychiatry

PP014

THE OVERVIEW OF HYPNOTHERAPY TO OVERCOME NAIL BITING IN CHILDREN

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Nail biting is one of oral habits that many children do it on their infancy. The effect is atrition, rotation, malposition and spoil the tissue of periodontion around the teeth. It is because of force generated from the habit. Hypnotherapy is alternative therapy as effort for reducing nail biting. This study aims to description of hypnotherapy to overcome nail biting in children. The study was a quasi-experimental. The sample size was 24 children that girls and boys. The study was conducted by looking at recurrence and frequency after done hypnotherapy on seven days. The data gotten by description analysis with table that shows 33,33% respondences have no recurrence, 37,5% respondences have recurrence with descreasing frequency, 29,17% respondence have recurrence with constant frequency before hypnotherpy. The study concluded that hypnotherapy could to used for reducing nail biting in children.

PP015

AUTISM SPECTRUM DISORDERS AND COMPLEX SYSTEMS THEORY

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Introduction: ASDs are significantly increased today and their etiopathogenesis is largely unidentifiable.
Purpose: Complex systems theory could contribute to understand autism and new perspectives about its prevention & therapy may be opened. Material and Methods Basic principles of complex systems theory and clinical characteristics of ASDs are reviewed in order to push forward novel correlations to understanding them.
Results: Heterogeneity is major feature of autism. Non-linear, complex, dynamical relationships govern the disorder, since plenty of factors have been no collectively, unpredictably implicated in its etiopathogenesis, phenotypic expression & prognosis. So, systems-level approach of disease evolution is required. Autism subphenotypes represent unhealthy attractors where organism as a whole system enters to, in order to maintain its stability & indicate that the organism exhibit marked sensitivity to initial conditions (butterfly effect). Systemic approach says that human being is an open system, where individual components interact between them & with the environment. Studies show abnormalities in brain connectivity, altered neurotransmitters & impaired systems (brain-gut) connectivity in autism. Also, autistics have impairment in communication. So, in autism the reduced connectivity at lower scale refers to reduced communication as an emergent property at the higher-macroscopic-clinical scale. Autistics are no more open systems as they don't exchange information with the environment. Autistics show early abnormal brain overgrowth, which is followed by premature arrest of brain growth later. Is autism an anabolic state where early overdevelopment results in exhaustion of feedback loops and subsequently reduced system performance later? Sameness touches on every aspect of autistics (restricted & repetitive behavior, food neophobia). Stereotype constitutes emergent property, which represents linearity, reduced diversity & complexity, high predictability, loss of adaptation. However, for living systems over-regulation & linearity is unhealthy and loss of complexity means disease (deficit in theory of mind). Autistic children have statistically significant fewer fevers and more chronic problems (e.g. gastrointestinal) compared with normal children. Also, autistic children may improve with fever. Given that fever is an energy-consuming mechanism, autistics who don't develop fever are probably trying to save energy in order to adapt in an environment hostile to them. Consequently, the possibility of fever development or not, represents the increased/decreased diversity, respectively, of autistic.
Conclusions: Autism consideration via complex-dynamic systems approach may help in pathogenesis understanding of the disease. Predictive factors it is possible to be recognized, new perspectives about

disease origin may emerge and preventive programs may take place (avoidance improper fever suppression, enriched behavioral programs etc).

Children's Environmental Health

PP016

CHILDREN'S SAFETY CULTURE AND PROMOTION: AS PERCEIVED BY UNDERGRADUATE PEDIATRIC NURSING STUDENTS

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Lack of perception of undergraduate students about children's safety culture and promotion renders them unable to eliminate medical errors and system related risks for children as pediatric nurses (Beal et al., 2004).
Aim: this study was carried out to assess the perception of undergraduate pediatric nursing students regarding children's' safety culture and promotion. Setting: the study was done in the Faculty of Nursing in Menoufia University.
Research design: a descriptive research design was used for the study. Sample: all enrolled undergraduates (143 females) who just finished their pediatric nursing required courses were included. **Tools**: two tools were used for data collection based on extensive review of the literature. Tool one: a structured: socio-demographic questionnaire to obtain demographic data of the studied sample. Tool two: five points Likert- scale questionnaire was used to assess the perception of undergraduate pediatric nursing students regarding culture and promotion of children's safety. Results: the results of this study showed unfortunately that, nearly two thirds of the pediatric nursing students (63.9 %) had poor perception of their knowledge regarding children safety culture and promotion. Also, nearly two thirds of the studied sample (65.7%) had poor perception of their ability to promote children safety. Meanwhile, the majority of the studied sample (65%) had poor perception score compared to 35% had good perception score of children's' safety culture and promotion.
Conclusion: it was concluded that, undergraduate pediatric nursing students had poor perception of children's safety culture and promotion. Recommendation: the study recommended to urgently reconstructing pediatric nursing curriculum with the emphasis on children safety culture, promotion and utilization by the pediatric nursing students. Key words: Perception, promotion, and children's' safety

PP017

SECOND HAND SMOKE EXPOSURE IN THE ODESSA REGION, UKRAINE: PREVALENCE AND ASSOCIATION WITH RESPIRATORY DISEASES IN INFANTS

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Introduction: According to the World Health Organization data, almost half of the all children in the world (700 million) exposed to passive smoking. The vulnerability of children to second hand smoking is a particular concern for health and ethical reasons. The presence of smokers in the family is a risk factor for intrauterine fetal endothelial damage and, as a consequence, lung disease in the postnatal period of the child development. Second hand smoke exposure is a very significant risk factor for sudden infant death syndrome (SIDS). It was proven in the global European epidemiological study ECAS that both mother's and other family member's smoking may increase the risk of SIDS. The odd's ratio for mother's smoking was 4,38 (95 % CI 3,62 -- 5,30) and for other family member's smoking -- 3,13 (95 % CI 2,61 -- 3,74).

Purpose: Our goal was to estimate the prevalence of second hand smoking among infants and to examine the relationship between second hand smoke exposure and respiratory diseases rate in the Odessa region, Ukraine. Materials and Methods. We conducted face to face interviews using a standardized questionnaire to collect information on prevalence of smoking at home, mother nicotine dependence, the frequency and severity of diseases in infants. We selected 200 infants from the entire number of infants who visited outpatient clinics of the Odessa region and 196 infants with respiratory diseases hospitalized to the Odessa Region Children Clinical Hospital.
Results: The survey revealed an unexpectedly high prevalence of second hand smoke exposure among infants of the Odessa region (24.5%). Among families of infants -- second hand smokers those families dominated in which only father smokes. The frequency of infants with recurrent respiratory diseases in which families both parents smoke is significantly higher than the frequency of recurrent respiratory diseases in the families where only father smokes (45.5% vs 29.6%). The frequency of second hand smoke exposure among infants with pneumonia of different severity is higher than the frequency of passive smoking in the general population (32.7% vs 24.5%)
Conclusions: The prevalence of second hand smoke exposure is significantly higher among infants with respiratory diseases than among general population. Therefore it is expedient to study the polymorphism of genes that encode proinflammatory and antiinflammatory proteins in infants who are exposed to the adverse effects of second hand smoking which will give an opportunity to predict the course, duration and outcome of respiratory diseases among such children.

PP018

OVERWEIGHT AND HIGH BLOOD PRESSURE IN PRESCHOOL CHILDREN: IDENTIFY TO EARLY INTERVENE

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[2]*College of Natural Medicine/Bristol, UK*

Background: Childhood overweight affects negatively the physical and psychological child's health, even compromising their future health. Childhood obesity has multifactorial causes, however, its complications, such as high blood pressure is asymptomatic. Being overweight is probably the condition most strongly associated with increased blood pressure in childhood, and responsible for the increased risk of developing hypertension in adulthood. Thus, during monitoring child health is very important to evaluate the individual and family risk, so the treatment can be started early.
Purpose: To determine the children's blood pressure values and analyse their relationship with the nutritional status. Materials and Methods: Cross-sectional and observational study, inserted in a larger project (MISIJ, 2008-2013), comprising 1424 preschool children, average age 4,58 years old (SD=0,99), residents in some regions of Portugal. A questionnaire on child and parents' socio-demographic characteristics was applied, children's anthropometric measurement and BMI was obtained, and the classification was based on the NCHS reference (CDC, 2000). Blood pressure (BP) levels were obtained by auscultator method and the classification in accordance with the Fourth Task Force recommendations (NHBPEP, 2005). Ethical procedures were safeguarded by obtaining parents' permission.
Results: From the sample, 34,3% were overweight (obesity 17,4%) with significant higher values in boys (36,8%) (Chi-square= 31,220; p=.000). Globally, the BP levels was less than the 90th percentile (normal BP) to 89,6% of children (93,2% boys and 85,7% girls), while 5,8% and 4,6% respectively had values considered high-normal and hypertension. The association between blood pressure level and BMI percentile showed that in children with normal weight 2,8% had high-normal BP and 2,4% hypertension. From the overweight children, 5,3% had high-normal BP and 1,0% hypertension, and those with obesity, 8,9% had high-normal BP and 4,8% had hypertension, with statistical significance (Adjusted residual= 2.3). The odds ratios also indicated that the probability of overweight children to have hypertension was approximately 1,5 times higher (OR= 1,479; IC 95%= 1,043-2,090), with statistical significance (÷2= 4,959; p= 0,017).

Conclusions: Despite the transversal nature of this study, the results suggest a positive and significant relationship between children excess weight and increased blood pressure. In the current obesogenic environment, the monitoring needs to be stronger than ever and this evidence reinforces the importance of primary health vigilance, and the role of nurses in the effective promotion of child and family health, focused on the control of modifiable risk factors and risk behaviours, for preventing the early onset and adulthood development of cardiovascular disease.

Dermatology

PP019

PRESENTATION OF PHAKOMATOSIS PIGMENTOVASCULARIS TYPE IIB WITH STURGE-WEBER SYNDROME AND KLIPPEL-TRENAUNAY SYNDROME

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[2]Department of Dermatology, Abant Ýzzet Baysal University Faculty of Medicine, Bolu, Turkey

Phakomatosis pigmentovascularis is a rare genetic disorder that is seen sporadically with combination of nevus flammeus and nevus pigmentosus Sturge-Weber syndrome is a neurocutaneous syndrome which is characterized by port-wine stain hemangiomas involving the upper part of the face. Klippel-Trenaunay syndrome is composed a triad of vascular malformations, venous varicosities and soft tissue and bone hyperplasia in the involved limb which especially affects the extremities (Figure 1). Radiological investigations revealed atrophy and calcifications on cerebral cortex and hypoplasia of the A1 segment of the right anterior cerebral artery (Figure 2,3). Coexistence of these three syndromes in the same patient is extremely rare. Here a 2 year old baby girl presented with a combination of phakomatosis pigmentovascularis type 2b, Sturge-Weber and Klippel-Trenaunay syndrome. Also clinical features of these syndromes and findings of affected systems were discussed.

Figure 1: Bilateral facial widespread porte-wine stain and Mongolian spots on abdomen and hypertrophy of left leg.

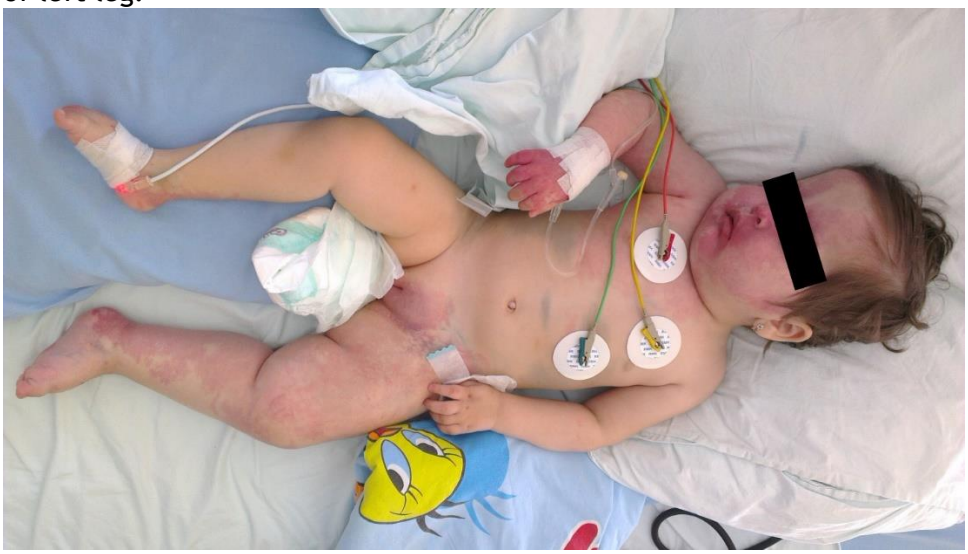


Figure 2: Atrophy and calcifications on cerebral cortex.

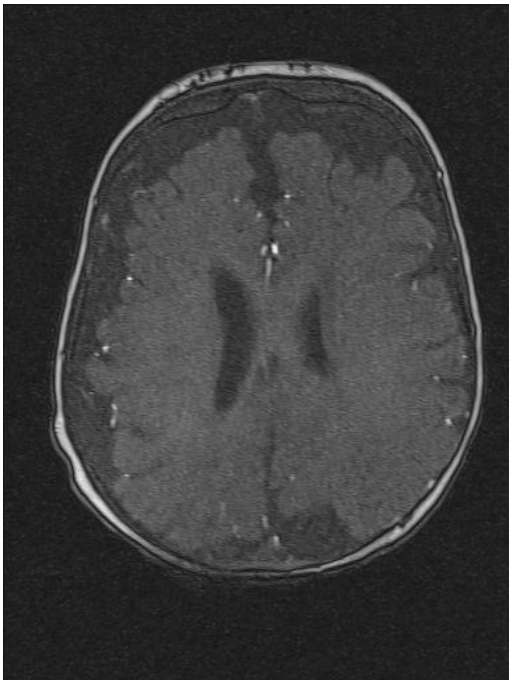
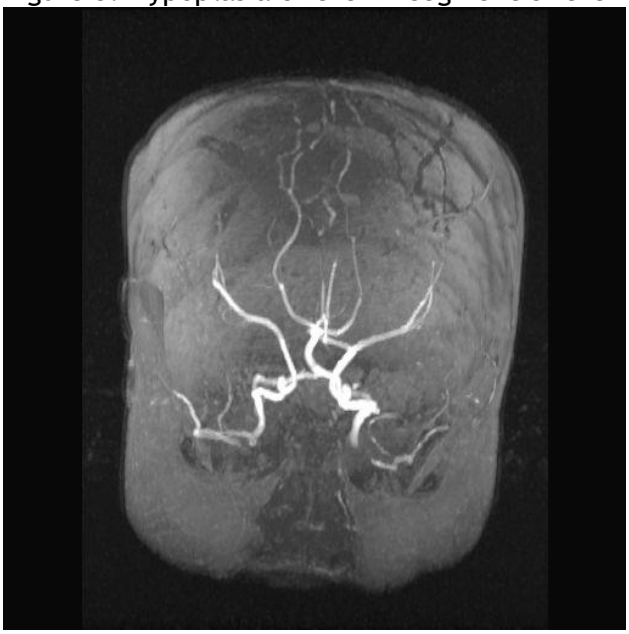


Figure 3: Hypoplasia of the A1 segment of the right anterior cerebral artery.



Endocrinology

PP020

PSEUDOHYPOPARATHYROIDISM WITH DIABETES MELLITUS AND HYPOTHYROIDISM

Arora, Sunaina*
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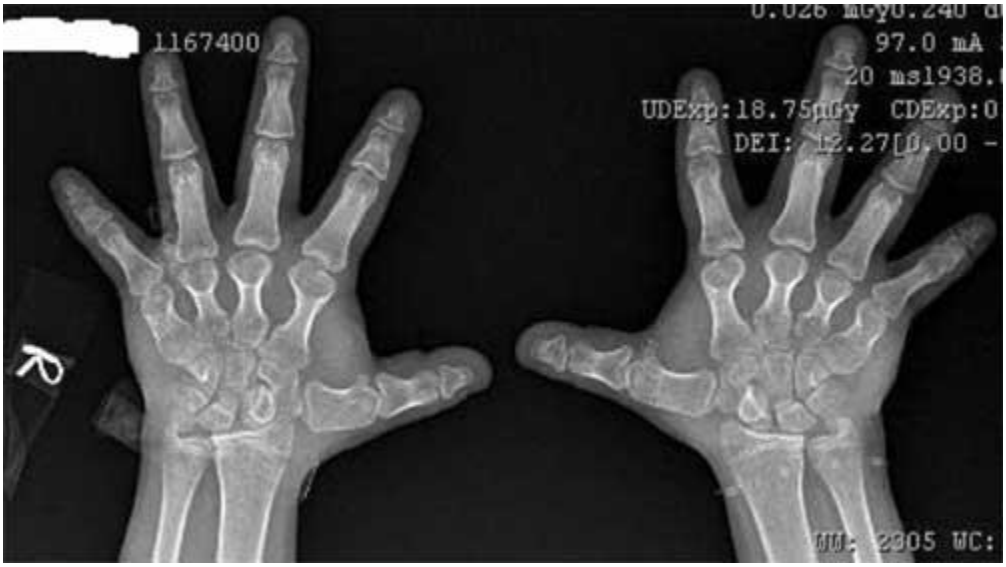
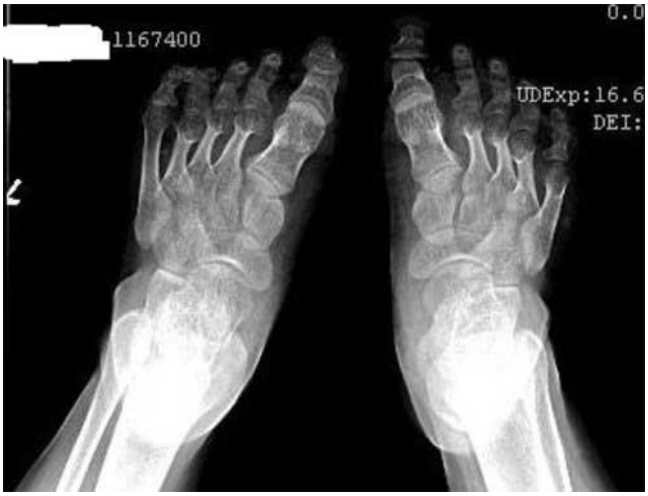
We report a case of 12 year old child with pseudohypoparathyroidism (PHP) whose mother had pseudopseudohypoparathyroidism. Child had low calcium, high phosphorous and high Paratharmone(PTH) levels. PHP occurs due to defect in guanine nucleotide binding protein (GNBP). She also had hypothyroidism which is known to utilise G protein pathway.She also developed T1 DM while under follow up.This is arguably first time Type 1 DM has been reportedly associated with PHP.





Keywords: Albright Hereditary Osteodystrophy, Hypothyroidism, Parathyroid harmone,

Pseudopseudohypoparathyroidism, Type 1 Diabetes Mellitus

PARAMETERS	INDEX CASE
serum calcium	3.0 mg/dl
serum phosphorous	11.2 mg/dl
serum alkaline phosphate	565 u/l
serum albumin	3.7 g/dl
serum magnesium	1.4 mg/dl
serum intact Parathyroid harmone	468pg/ml
serum OH VIT D	9 ng/ml
blood urea nitrogen	10.5 mg/dl
serum creatinine	0.5 mg/dl
serum free T3	1.5 pg/ml
serum free T4	1.1ng/dl
serum TSH	12.3 uIU/ml
urinary calcium	0.5 mg/dl
serum c peptide	0.3 ng/ml

Gastroenterology, Nutrition & Metabolism

PP021

AN UNUSUAL PRESENTATION OF DIARHHOEA

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[2]Norwich University Hospital, UK; [3]Addenbrookes Hospital,Cambridge, UK

15 month old child was referred with 3 months history of weight loss, skin rash and intermittent diarrhoea with suspected cow's milk protein allergy. She was born at term with no significant past medical history and has had a normal development. Examination revealed a pale, well-hydrated girl and abdominal distension without any lymphadenopathy or organomegaly.She had significant muscle wasting, specially of her lower limbs and buttocks.

Investigations showed metabolic acidosis, hyponatremia and hypokalemia suggesting probable renal pathology. Ultrasound abdomen showed normal kidneys with no other abdominal pathology. The child was initially managed with input from the tertiary renal unit. Further tests ruled out any renal loss of sodium and potassium suggesting other possibilities like gut pathology. There was persistent diarrhoea throughout her stay. Feeds were stopped and she was started on intravenous fluids and oral rehydration fluids. She was subsequently given full parenteral nutrition via central line. Diarrhoea continued still, which suggested secretory diarrhoea. Her stool pH was 8.5.Her acidosis and electrolytes were corrected with supplements.

Repeat ultrasound and CT scan(abdomen)showed a left para-aortic mass with calcified foci and neovascularity suggesting neuroblastoma or ganglioneuroblastoma.She was transferred to the regional tertiary centre. Blood tests also confirmed neuroblastoma (raised VMA) ---suggesting the cause of the intractable secretory diarrhoea. Child underwent complete resection of the retroperitoneal mass with a prompt recovery and resolution of symptoms. Histology showed neuroblastoma with low malignancy.

Child is on regular follow up and is asymptomatic. She is growing well, gaining weight and showing normal development.

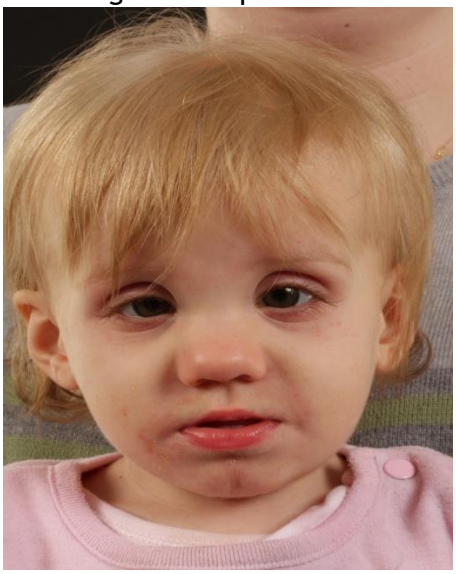
Discussion: Neuroendocrine tumours affecting the gastrointestinal tract are rare in children, and tend to cause secretory diarrhoea. [1]

They may occur as ganglioneuromas and ganglioneuroblastomas in the sympathetic ganglia and in the adrenal glands.

Ganglioneuromas are rare tumors that most frequently start in the autonomic nerve cells, which may be in any part of the body. The tumors are usually benign. They are detected in 1 in 10 million people per year [2].

The majority arise within the pancreas. Most adults are between the ages of 30 and 50 years and most children are between the ages of two and four years.

Most neuroblastomas produce catecholamines as metabolic by-products. Werner-Morrison syndrome causes intractable secretory diarrhoea, resulting in hypovolaemia, hypokalaemia, and prostration. This syndrome is caused by vasoactive intestinal peptide (VIP) tumour secretion and is more commonly associated with ganglioneuroblastoma or ganglioneuroma. Werner-Morrison syndrome typically resolves following the complete removal of the tumour. [3]



Child before surgery

Child after surgery

REFERENCES

1.Binder HJ. Causes of chronic diarrhea. N Engl J Med 2006; 355:236.

2.Smith SL, Branton SA, Avino AJ, et al. Vasoactive intestinal polypeptide secreting islet cell tumors: a 15-year experience and review of the literature. Surgery 1998; 124:1050.
3.Friesen SR. Update on the diagnosis and treatment of rare neuroendocrine tumors. Surg Clin North Am 1987; 67:379

PP022

MEMBRANE TRANSPORT DEFICIENCY: REVIEW OF 4 CASES

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Introduction: Membrane transport disorders (MTD) represent rare examples of inborn errors of metabolism.Purpose: review 4 cases of MTD.
Materials and Methods: We checked for: age of diagnosis, clinical findings, laboratory and imaging changes,outcome of the treatment,prognosis.
Results: 1-Creatine transporter deficiency: 5y old boy with absent language, behavioural problems.Urine Creatine-11987mmol/L, creatine/creatinine ratio- 3.33.Positive SLC6A8 gene.MRI of the brain-absence of creatine. No respond with oral creatine. The patient has mental retardation. 2- Carnitine transport deficiency: 6y old girl with dyspnea, muscle weakness. Total carnitine- 5 ìmol /L. Very low rate of carnitine uptake in culture skin fibroblasts-0.01pmol/min per mg protein. Positive SLC22AT gene. Echocardiogram: very poor contractibility.With oral carnitine, the patient recovered from dyspnea and has normal echocardiogram.Total carnitine: 20 ìmol/L.No more symptoms. 3- Magnesium transport deficiency: 1m old boy with episodes of convulsions.Low magnesium: 0,6mg/dl and calcium: 6,2mg/dl. Stools examination-magnesium 3,34mg/day and urine 24 h magnesium - 9,7 mg/L(low levels). MRI of the brain-normal.We started infusion of magnesium sulfate and calcium gluconate.The convulsions stopped and normalized plasma calcium and magnesium.He has excellent psychomotor development.No more convulsions.4- Copper transport deficiency: 8d old boy with hypotonia, white and sparse hair.Low ceruplasmin-3.0 mg/dl and copper-21 µg/dl. Hair examination: pilli torti. MRI of the brain: elongated and tortuous vessels. Positive ATP7A gene. Under copper histidinate he has several episodes of seizures.Copper and ceruplasmin normalized.The prognosis is poor.
Conclusions: The diagnosis for copper and magnesium defect was in the early age.Metal disorders has early convulsions.The phenotype and images was typical in copper defect.The treatment has excelent results in carnitine and magnesium deficiency.The prognosis is poor in copper and creatine disorder

PP023

THINK AGAIN.THINK NP-C

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[2]*INPDA, UK*

An International Niemann-Pick Disease Alliance campaign to raise awareness amongst clinicians that may not be aware of the combination of symptoms that might suggest a diagnosis of NP-C. What is NP-C? Niemann-Pick Disease Type C is a progressive, irreversible and chronically debilitating lysosomal storage disease. It is caused by a defect in lipid transportation within the cell. This leads to intracellular accumulation of lipids in the brain, liver and spleen causing the symptoms of NP-C. NP-C is an inherited condition and can present at any age, affecting infants, children, adolescents and adults. The incidence of NP-C is approximately 1 in 120,000 live births. However, this is likely to be an underestimate due to a lack of clinical awareness of the disease and the difficulty in recognising NP-C because of its highly heterogeneous clinical presentation. NP-C is commonly undetected or misdiagnosed. This is often due to its highly variable clinical presentation characterised by a wide range of symptoms that, individually, are not specific to the disease. The journey to diagnosis can therefore be long and frustrating for patients

and their families. The average delay in diagnosis is five to six years from onset of neurological symptoms. Why have a campaign? Currently Niemann-Pick type C disease (NP-C) takes, on average, five years to diagnose. However, NP-C is treatable and so this means that patients live for five years without treatment or access to support. Think Again. Think NP-C is a campaign led by the International Niemann-Pick Disease Alliance (INPDA), an alliance of non-profit Niemann-Pick disease patient support organisations across the world. Think again.Think NP-C The campaign will be launched in more than 10 countries with resources in more than 4 languages and involve International family support groups. The campaign aims to reduce the time to diagnosis by supporting healthcare professionals who are unfamiliar with NP-C to recognise the key signs and symptoms of the disease. This will help patients by speeding up diagnosis so patients can access treatment and support.

The campaign has an International advisory group from specialists in the field and is financially supported by Actelion

PP024

ASSESSMENT OF MALNUTRITION BASED ON THREE NUTRITIONAL RISK SCORES IN HOSPITALIZED IRANIAN CHILDREN

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Background and Objectives: Malnutrition is a major health problem in hospitalized pediatric patients. It is reported that the number of malnourished pediatric patients varies between 21% and 80% according to the level of the country's development. It is essential that patients who are malnourished or at risk of malnutrition be identified as soon as they are admitted to the hospital. A recent study applied three of nutritional risk screening tools (STRONGkids, STAMP and PYMS) to children admitted to a tertiary children's hospital in Iran. This study aims to evaluate the nutritional status of hospitalized children in a tertiary pediatric hospital in Mashhad-Iran and compare the validity, ease of use, and the varying prevalence of malnutrition according to these three nutritional risk screening tools

Materials and Methods: Three nutritional risk score tools were applied to all patients and classified into low, medium and high-risk groups. The anthropometry of hospitalized children was determined and classified using standard criteria. The validity and the ease of use of the tools was assessed.

Results: Of children classified, 30.6% were found to be undernourished based on their WFH z-score and the prevalence of moderate and severe malnutrition was 22.8% according to the HFA. PYMS identified 23.5% in the medium-risk group and 52.2% in the high-risk group. STAMP identified 20.9% in the medium-risk group and 69.6% in the high-risk group. STRONGkids classified 71.3% of children as medium and just 7.8% as high-risk. STAMP detected more malnourished children (21/21) compared to PYMS (20/21) and STRONGkids (17/21).

Conclusion: NRS tools were able to detect children at a higher risk of nutrition deterioration; however, variable utility was observed. Further assessment of NRS tools in developing countries is required. In these countries, PYMS was the most reliable tool.

Keywords: Malnutrition, Pediatric, Nutrition screening tool, Iran

PP025

EVALUATING QUALITY OF LIFE AND PSYCHIATRIC COMORBIDITY IN CHILDREN AND ADOLESCENTS WITH CONSTIPATION (WITH OR WITHOUT FECAL INCONTINENCE) AND COMPARISON WITH HEALTHY COUNTERPARTS

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[4]*Mashad University of Medical Sciences, Iran;*
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Introduction: Constipation is one of the most common gastrointestinal problems among children. The behavioral and psychological problems associated with chronic constipation include a wide range of disorders which lead to impaired quality of life.
Purpose: The purpose of current study was to evaluate psychiatric disorders and quality of life in children and adolescents suffering from constipation.
Material and Method: In a case-control clinical trial, 55 children and adolescents with functional constipation and 55 without constipation were included into case and control groups respectively. After taking medical history and physical examination, three questionnaires including demographic information, pediatric quality of life (PedsQoL) questionnaire and strengths and difficulties (SDQ) questionnaire were provided to parents, children and adolescents. Collected data were coded and analyzed using SPSS.
Results: The mean child self-reported and parent proxy-reported scores of PedsQoL were 54.67±3.9 and 49.86±3.2 in case participants, while it was 63.26±4 and 66.09±3.4 in control children. Only parent reported quality of life score was statistically different among case and control patients (p=0.014). The emotional performance of quality of life was statistically different based on both self-reported (p=0.016) and parent-reported (p=0.024) questionnaires. The total SDQ score was in abnormal levels in 93% and 83% of case and control participants respectively which was an insignificant difference (p=0.631). There was no statistically difference in SDQ subgroups and Impact score between two groups.
Conclusion: Quality of life and emotional performance are impaired in children with functional constipation and they should be screened for consequent disorders. Referring at-risk patients to related specialists might help the process of treatment and controlling constipation.

PP026

EFFECTIVENESS OF FOOT MASSAGE WITH FUNCTIONAL CONSTIPATION IN CHILDREN

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[2]*Karamanoglu Mehmetbey University, School of Health, Obstetric and Gynecologic Nursing Department, Turkey*

Introduction: Constipation is one of the most common intestinal problems in children, accounting for 3% to 5% of all visits to pediatricians. Constipation in children may be caused by a change in diet and fluid intake, during toilet training or a deviation from usual toileting routines, or avoidance of bowel movements because of pain such as anal irritation, fissures (small tears in the skin), or rashes.
Purpose: The aim of this study is to determine the efficacy of foot massage in children with functional constipation.
Material and Methods: 37 children who has a diagnosis of functional constipation are included in Randomized controlled study. 17 children consisted experimental group and 20 children consisted control group. Randomized controlled study with a diagnosis of functional constipation, 17, 20 in total, including a control group of 37 children were included. Each child in the experimental group was enforced a foot

massage for 10 minutes, toilets and diet / motivation training was taught to their parents. Foot massage was completed in 4 weeks and was done 5 days a week. Toilet / diet / motivation training was performed for 30 minutes once per week (a total of 4 weeks) in an interactive manner. To the families of the children in the control group was not given a foot massage, only toilet / diet / motivation training and advising was given on other days and lasted for a total of 4 weeks. Families with a child's stool features a questionnaire that includes questions about applied at the beginning of the study and on the last day of every week.
Results: Between experimental and control groups are noted significant difference in terms of faeces frequency and faeces consistency (p> .05).
Conclusion: Foot massage in children with functional constipation doesn't make significant differences by statistically on consistency and number of faeces. Constipation in children is determined sufficient toilet / diet / motivation training in the management of constipation.

PP028

INTERLEUKIN-6 GENE -- 190 T/C POLYMORPHISMS IN A GROUP OF OBESE CHILDREN FROM ROMANIA
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The alarming increase in the prevalence of child obesity has led worldwide in action to promote a healthy lifestyle, education and information, in parallel with continuing research in the field; in Europe, the increasing prevalence has accelerated in recent years. The polymorphism of gene IL-6 190 modifies the producing and influences the level of this protein, known as an inflammatory cytokine and studied as possible marker of obesity. The aim of study was to establish the correlations between these gene polymorphism and obesity in a children population from Romania, aspects less studied before in children. Methods. 222 consecutively hospitalized patients were assessed in a tertiary emergency pediatric hospital. According to BMI, they were divided in two groups: group I, the control group - 110 patients with normal nutritional status, and group II, 102 patients -- obese children. The two groups underwent IL-6 190 T/C polymorphism, anthropometric parameters [middle upper arm circumference (MUAC), tricipital skin-fold thickness (TST)] and paraclinical evaluations (leptin, adiponectin, VEGF, proteins, albumins).
Results: We observed that phenotype CC was more frequent in obese children [p=0.0001, OR 2.567, 95% CI (1.455-6.871)]. By applying a multivariate regression (having leptin as dependent variable, while all the others were independent variables), we found that leptin was dependent of albumin [(p = 0.01), OR 1,978 95% CI (1,358-3,224)] and, as well as adiponectin, it was not dependent of IL-6 190 phenotype. MUAC and TST as anthropometric index, and albumins and leptin as biochemical parameters seem to characterize well all three haplotypes (CC, CT, TT) of IL-6 190 T/C gene in obese children (p=0.0001).
Conclusion: Anthropometric parameters (BMI, MUAC, TST) and serum albumine levels correlate with CC allele carriers of IL-6 190 gene in children with obesity.
Keywords: children, IL-6 Gene 190 T/C Polymorphism, obesity References 1. Böttcher Y, Körner A, Kovacs P, Kiess W (2012) Obesity genes: implication in childhood obesity. Paediatrics and Child Health 22(1):31-362. 2. Ramírez-López G, Portilla-de Buen E, Sánchez-Corona J, Salmerón-Castro J, Mendoza-Carrera F (2013) Interleukin-6 polymorphisms are associated with obesity and hyperglycemia in Mexican adolescents. Arch Med Res. 44(1):62-8. 3 3. Rostami F, Haj Hosseini R, Sharifi K, Daneshpour M, Azizi F, Hedayati M (2010) Association of G-174C Polymorphism of the Interleukin-6 Gene Promoter with Obesity in Iranian Population. World Academy of Science and Technology 45:99-102

PP030

PRIMITIVE PEPTIC ULCER DISEASE: A 5-YEAR RETROSPECTIVE STUDY IN A CHILDREN'S HOSPITAL FROM NORTH-EASTERN ROMANIA

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Introduction: Primitive peptic ulcer disease is still frequent in children from middle incoming countries with a high incidence of H.Pylori infection and a large amount of population with impaired socioeconomic status. Purpose: To investigate the prevalence, clinical features and risk factors of primitive peptic ulcer disease (PUD) in a pediatric population from North-Eastern Romania.
Materials and Methods: We examined retrospectively all endoscopy records from 2009-2013 from our gastroenterology unit. Demographical, clinical, laboratory, endoscopical and therapeutic data were analysed.
Results: We report an incidence of 6,09/100.000 individuals for primary PUD and a frequency of 4,61%. 49,36% of children were 14-16 years old (range: 7-18 years), male to female ratio was 1,46:1 and 77,41% of patients were living in urban areas. Clinical features included chronic abdominal pain (50.89%), followed by vomiting (34.18%) and upper digestive bleeding (11.39%). We found 65 douodenal ulcers (DU) and 19 gastric ulcers (GU). Family history was positive in 55,33 % of DU; in this group we found type O blood in 55,56% of the patients. 71,42% were HP-related PUD; from these, 77,42 % were DU. Non HP-PUD was found in 28,58 % children We identify an improper diet (63,16%), smoking (57,39%) , alcohol consumption (15, 78 %), psychological stress represented by school difficulties (27,27%), family conflicts (22,73%) and conflicts with entourage (13,64%) as additional risk factors for the disease. We noticed a significant correlation between a high number of family members (r=0.63, p=0.002) , low socioeconomic status (r=0.87, p=0.0003) and H.pylori infection. We used standard triple therapy in 73,33% of the patients, bismuth based quadruple therapy in 16,66 % children and sequential therapy in 10% of the cases. The global eradication rate was 66,66 % on all series of patients; we didn't have technical conditions to search antibiotic resistance of the bacteria but previous studies indicate a resistance to clarithromycin around 33 % in Romania.
Conclusions: In North-Eastern Romania, primitive PUD affects mainly teenagers from urban areas, originating from large families with a low socioeconomic status and a high incidence of H.pylori infection. DU were more frequent, associated with blood type O and family history; we also identified associated risk factors for the disease as diet, smoking, alcohol consumption and stress. Since we obtain a moderate eradication rate using the first line recommended therapies we considered this as an indirect proof of high clarithromycin resistance in romanian children due to the wide-spread practice of empirical antymicrobial therapy in our country.

PP031

A TRUE CHAMELEON: HELICOBACTER PYLORI

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Introduction: Helicobacter pylori infection in children sometimes depicts of insidious and misleading pictures.
Case presentation: A 10 year old girl is seen for recurrent abdominal pain.She was operated 6 months before for suspected acute appendicitis (subsequently identifed as histologically "erythematous" ...)
The re-emergence of painful crises , predominantly meso-celiac and periumbilical, motivates admission to pediatric department. Physical examination found no abnormalities, apart from the pain; while the laboratory tests reveal neither inflammation nor stigmata of anemia The age and sex of the patient, the pseudo-appendicular symptomatology and , mainly, the persistent crises reinforce the hypothesis of a

gastric Helicobacter infection. Endoscopy found a nodular gastritis, highly suggestive of Helicobacter pylori, without duodenitis nor major macroscopic abnormalities Pathology then confirms the presence of bacteria in the mucosa biopsied with a 10% lymphocytosis without villous atrophy Anti-ulcer tri-therapy with amoxicillin-clarithromycin + omeprazole resulted in a complete remission

Discussion: Helicobacter pylori, a Gram-negative anaerobic micro-organism discovered in 1983, is the leading "provider" of pediatric gastritis. This is a common and ubiquitous infection, acquired primarily at the young age: more than three quarters of the population in developing countries are infected during childhood. It is recommended to look for Helicobacter pylori in cases of iron deficiency and chronic idiopathic thrombocytopenic purpura, if 1st degree family history of gastric cancer is present , and such in our case, in symptomatic children from endemic geographical areas Conclusion: Infection with Helicobacter pylori should be sought in high prevalence countries in case of towed and non-evocative signs.

PP032

DEMOGRAPHIC, EPIDEMIOLOGICAL FEATURES AND SOCIO-ECONOMIC BURDEN OF CHILDHOOD WILSON DISEASE IN SOUTH-EASTERN ROMANIA

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Introduction: Wilson Disease (WD), also known as hepatolenticular degeneration, is an autosomal-recessive disorder caused by a mutation in the ATP7B gene, which results in low biliary excretion of copper and leads to its accumulation in the liver, brain, cornea and kidneys with consequent pathologic changes in these organs. Approximately 1/30 000 persons is diagnosed with WD wordwide. There is a geographic variation of this disease. The costs of patient evaluation might be one of the reasons Romanian patients are diagnosed rather late.

Purpose: The aim of the study was to establish demographic, epidemiological and socio-economic features of children with WD, diagnosed in a single center from Bucharest, receiving patients from South-Eastern Romania.

Materials and Methods: We conducted an observational, retrospective study. We included 22 patients diagnosed with WD between January 2004 and August 2014 in the Hepatology Department of "Grigore Alexandrescu" Emergency Hospital for Children, Bucharest. From the medical records we extracted: year of diagnosis, the living area: urban/rural and county of residence. The economic burden of the disease was established trough the costs of patient evaluation.

Results: 22 patients were diagnosed with WD between January 2004 and August 2014. The mean age at diagnosis was 12.4 years. The sex ratio was male/female =2.14/1. The study group included three siblings (two boys and one girl) and one pair of twin girls whoose mother is diagnosed with WD. Looking at the living environment, the rural/urban ratio was 1.75/1. 18 patients were diagnosed since 2010 (81.8%). The counties with the highest number of patients diagnosed with WD were Prahova, Arges and Dambovita with four, three and three patients respectively. The patients were hospitalized for evaluation and diagnosis an average of 7.5 days and the mean cost/evaluation/patient was 2873.65 RON (the equivalent of 650 Euro). The medium wage in Romania is 1552 RON (the equivalent of 350 Euro) and the key diagnostic investigations (urinary copper, serum ceruloplasmin, serum copper and the genetic test) are not available free of charge for the pediatric Romanian patients.

Conclusions: In recent years, WD was diagnosed more frequently in our clinic. The patients were predominantely boys. Most cases came from rural areas, probably due to a higher incidence of consanguinity. The medium cost of evaluation/case is twice the medium income/capita in Romania.

General Paediatrics

PP033

AN OBSERVATIONAL STUDY TO EXAMINE PATTERN AND QUALITY OF PRESCRIPTIONS IN AN EVOLVING PEDIATRIC OPD OF DEVELOPING ECONOMY

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Introduction: AIIMS Patna is one of the six newly formed health care and research institute by Government of India. For an upcoming health care institute of national importance, patient safety and rationality is major concern.
Purpose: 1. To examine pattern of OPD prescriptions at the department of Pediatrics 2. To identify deficiencies in safe and rational prescription practices against set of standards based on WHO Guidelines.
Materials and Methods: Consecutive 50 patient's consultation cum prescription forms were examined for compliance against twenty four practice standards based on WHO guidelines. Simple statistical formulae were applied to calculate mean and dispersion. Compliance above 90% was considered good, 75-90% satisfactory and below 75% poor indicator of prescription quality.
Results: Patient history and examination was written on respectively 46 and 45 records out of 50 prescriptions examined. In 86% cases doctors recorded a presumptive diagnosis. 64% records had no mention of immunization status. Though all children had weight and height recorded, only 6 forms had any comment on nutritional status. Nutritional advice including 'start weaning' was present only in 6% of all prescriptions. 92% children were prescribed at least one medicine and 22% prescriptions had at least one antibiotic. Trade name was used for 77 percent of all antibiotic prescriptions. Combination drugs were prescribed in 10 percent cases. 6% of prescriptions lacked proper dosage form, 10% lacked strength of the drug and one prescription had no dose written. Route and frequency was clearly mentioned in all the prescription forms while duration was missing in one prescription. There was no mention of review date in 10% of prescriptions examined. All forms were legible and signature of the doctor was present but identification of the prescriber was possible only in 34% of the forms evaluated.
Conclusion: We did not find polypharmacy in pediatric prescriptions. Standard operating procedure should be formulated for OPD prescription for pediatric patients and 100 percent compliance should be targeted for writing presumptive diagnosis, immunization and nutritional status, correct dosage form, dose, strength, route, frequency, duration and prescriber identification to ensure patient safety in prescription.

PP034

A QUESTIONNAIRE BASED SURVEY EXPLORING PARETAL SAFETY PRACTICES AND THE IMPACT OF A COUNTY-WIDE SAFETY CAMPIAGN DURING UK CHILD SAFETY WEEK 2014

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Introduction: Unintentional childhood injury is a major public health problem associated with significant mortality. In Gloucestershire there have been a number of fatal accidents among children related to heavy furniture, blind-cords and nappy bags as well as potentially harmful practices such as co-sleeping. Over the last few decades, UK injury prevention programmes have halved the number of childhood accidental deaths. There is evidence that community-based campaigns bring about positive behavioural change and have potential to reduce the number of injuries requiring medical attention.
Purpose: Our aim was to explore carer awareness of four specific hazards (nappy sacks, cord blinds, co-sleeping and heavy furniture) linked to paediatric deaths within the region through the use of questionnaires and a standardised educational poster display.

Materials and Methods: Poster campaign: A standardized safety awareness poster board was designed using approved charity leaflets using local council funding. Six-hundred poster packs were distributed to public centers across the county. Service evaluation questionnaire: A questionnaire was offered to carers /parents of children attending the Children's centre of Gloucestershire Royal Hospital during Child Safety Week. It explored their current safety practices as well as thoughts on the usefulness and impact of the poster campaign. The survey was approved by the Trust Research board and did not require ethical approval.
Results: We obtained 103 questionnaire responses over five days, 96% of which were from parents. Almost a quarter of respondents were unaware of accidental deaths relating to nappy sacks, although most (82%) kept sacks out of a child's reach. Of the 57 respondents who had cord blinds at home 26% did not have a safety device attached. Despite prominent national campaigns deterring parents from co-sleeping, 42% of all respondents stated they had slept in the same bed as their children when less than one year old. Two-thirds (67%) of respondents reported secure fixtures in place within their home. Many parents stated they were aware of the hazards highlighted (average 1-10 scale rating, 8.2), and had found the campaign useful (average 1-10 scale rating, 7.3). The potential to alter current practices however was perceived by carers to be negligible (average 1-10 scale rating, 5.3).
Conclusions: A poster campaign highlighting hazards implicated in local deaths is deemed useful by parents but the perceived impact of changing home safety practices is negligible. Further work through the use of focus groups and parental communication is required to identify how best to promote safety practices for future campaigns.

PP037

TRENDS IN NON-POLIO ACUTE FLACCID PARALYSIS INCIDENCE IN INDIA 2000-2013

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Introduction: Although the incidence of polio acute flaccid paralysis (AFP) has come down in India, the non-polio AFP (NPAFP) rate has increased. Nationwide, the NPAFP rate is 11.82/100,000 where the expected rate is 1-2/100,000. We examined the correlates of NPAFP, to discern explanations for the increase.
Purpose: The incidence of polio AFP has come down in the country. As a consequence the total AFP rate (which includes polio and non-polio causes of AFP) must come down with the non-polio AFP rate remaining steady. Inexplicably however, the non-polio AFP rate has shown a trend to increase over the years from 2000. Follow-up of these cases of non-polio AFP is not done routinely. However a fifth of these cases of non-polio AFP in the state of Uttar Pradesh (UP) were followed-up after 60 days, in 2005. 35.2% were found to have residual paralysis and 8.5% had died (total residual paralysis or death 43.7%). This suggests that the pathology in children being registered as non-polio AFP cannot be considered as trivial. There is thus impelling reason to try and understand the underlying causes for the surge in non-polio paralysis numbers.
Materials and Methods: The data on AFP, polio and non-polio AFP and number of polio rounds were examined in each state in each year from 2000 to 2013. Multiple linear regression analysis adjusting for region/state, total and female literacy rate, population density and per-capita GDP was performed. Differences between states and changes over time were analyzed.
Results: NPAFP increased with the number of OPV doses used. ($R2=25.02\%$; $P<0.001$). When effect of cumulative doses over the previous years was examined, the non-polio AFP rate in 2013 best correlated to the cumulative doses received in the previous 7 years ($R2=57.16\%$), excluding 2012 as data for this year was incomplete. This correlation was highly significant ($P<0.001$). On multiple regression analysis, the number of OPV doses was the only factor that showed a positive correlation with the NPAFP rate. The average increase in the non-polio AFP rate was 1.31 per 100,000 ($P<0.001$, 95% CI: 1.11-1.52) with each

dose of OPV. The NPAFP rate in UP and Bihar which had consistently increased year on year till 2011, decreased in the two states in 2012, coinciding with a reduction in doses of OPV administered.

Conclusions: Our results indicate that the incidence of non-polio AFP was strongly associated with the number of OPV doses delivered to the area. A dose response relation with cumulative doses over the years was also observed, which further strengthens the hypothetical relationship between polio vaccine and non-polio AFP. The fall in the NPAFP rate in Bihar and UP for the first time in 2012, with a decrease in the number of OPV doses delivered, is further corroborative evidence of a causative association between OPV doses and the NPAFP rate.

Table 1. Multivariate Regression Analysis

Characteristic	Coefficient (95% C.I.)	P
OPV doses	1.31 (1.11 1.52)	< 0.001
State	0.01 (-0.03 0.05)	0.69
Literacy	- 0.05 (-0.25 0.15)	0.64
Female literacy	0.05 (-0.20 0.11)	0.56
Percapita GDP (Rs 10,000 increase)	0.13 (-0.41 0.15)	0.36

Figure 1: Trends in Non Polio AFP rate with number of OPV doses

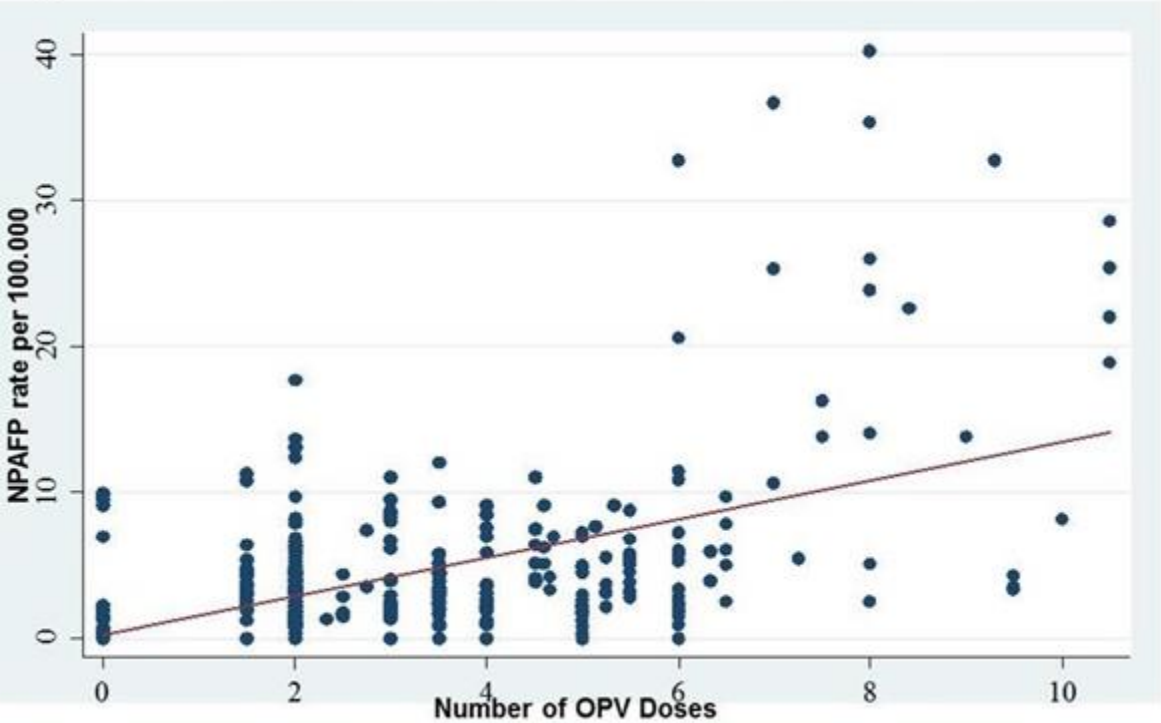
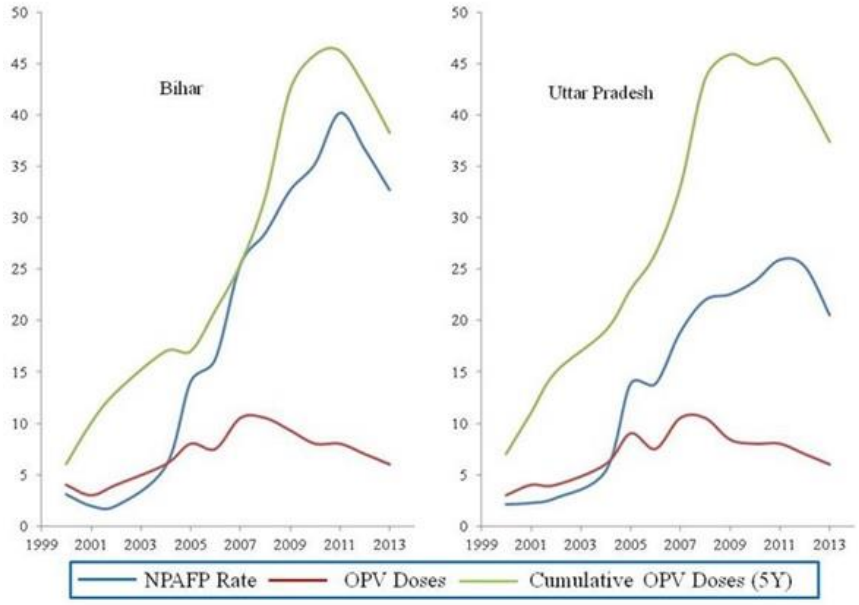


Figure 2. Yearly trends in NPAFP Rate with 5-year Cumulative Polio Doses in Bihar and Uttar Pradesh



PP038

EFFECT OF EARLY COCHLEAR IMPLANTATION ON CHILDREN'S INTELLECTUAL ABILITY ASSESSED BY RAVEN'S COLORED PROGRESSIVE MATRICES

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Tbilisi State Medical University, Republic of Georgia

Introduction: The benefits of cochlear implantation for children with hearing impairment and developmental delay often are unclear. We compared intellectual ability in children with and without hearing problems. Raven's Colored Progressive Matrices (CPM) is a well-accepted and widely used tool for assessing the general intelligence of young children ages 5-11years.
Purpose: The present study was designed to estimate the intellectual ability of early age children with hearing impairment; Effect of cochlear implantation on child's intellectual development after 6-12 months of intervention.
Materials and Methods: A case-control study was performed in Tbilisi Inclusive Education Centre for children with hearing loss and Tbilisi National Centre of Audiology. 25 children from these centers formed I (with confirmed CMV bearing) and II (hearing impairment of unknown etiology) cohorts, III cohort formed 10 deaf children after 6-12 months of cochlear implantation, IV cohort was control and formed by 62 healthy children of the same age. Comparison of study and control groups has been performed by Mann-Whitney's Nonparametric Test for 2 independent groups. Results: Received results revealed statistically significant difference in intellectual ability between children from I and II cohorts and control. Therefore there was no difference between I and II cohorts of children and it has no difference the deafness was resulted for CMV infection or other causes. The intellectual ability of children after cochlear implantation was significantly higher, than in children with hearing impairment ($P<0.05$). The intellectual development of implanted children after 6-12 months of intervention was not significantly differed from control group.
Conclusion: These data indicate that the early detection of hearing impairment and early intervention is very important for better outcome in children. If children could be implanted as early as possible, their intelligence would be improved and achieved the control's rate. These findings illustrate both the

complexity of the problems of deaf and hard for hearing children and the need for preventive interventions aimed at early recognition.

PP039

EFFICACY OF THREE DIFFERENT DISTRACTION METHODS ON PROCEDURAL PAIN AND ANXIETY IN CHILDREN

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Introduction: Medical procedures that are applied using a needle, such as venipuncture and immunization are the most common and important sources of pain for children, causing anxiety, distress and fear. **Purpose:** This study aims to investigate three different distraction methods, distraction cards, listening music and balloon inflation, on pain and anxiety relief of children during phlebotomy. Materials and **Methods:** This study is a prospective, randomized and controlled trial. The sample consisted of 7-12 year-old children who required blood test. Children were randomized into four groups: the distraction cards group, the listening music group, the balloon inflation group, and the control group. Data were obtained by interviewing the children with their parents and observer before and after the procedure. The pain levels of the children were assessed by the parent and observer reports as well as self report using the Wong Baker FACES Pain Rating Scale. The anxiety levels of children were assessed by parent and observer reports using Children's Fear Scale.
Results: One hundred and twenty children (mean age, 9.1±1.6 years) were included. The pain levels of children showed significant differences among the groups ($p < .05$).
Conclusions: The distraction cards were most effective method for pain and anxiety relief of children during phlebotomy.

PP040

SYSTHEMIC CAPILLARY LEAK SYNDROME IN A 16 YEAR OLD GIRL

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Systemic Capillary Leak Syndrome (SCLS) is a rare and life-threatining disorder characterized by recurrent episodes of severe hypotension, hypoalbuminemia and hemoconcentration. The disease can be complicated by compartment syndrome, rhabdomyolysis and acute renal failure. The condition has so far been mostly reported in adults and only a few cases has been reported in children. Here we report our experience in 16 year old girl with SCLS complicated by acute rhabdomyolysis.
Case: A 16 year old girl was admitted to our hospital with the complaints of fever, nausea, vomitting, myalgia and severe eodema on four extremities. During presentation her blood pressure was 85/60 mmHg, HR:110/min respiratory rate:30/min. On physical examination she had generelised oedema. She had no skin eruptions, she had history of insect bite, drug usage or intoxication. Her laboratory results revaled that Hb:22 g/dl, RBC:7,89x106, BUN: 65mg/dl, creatinin:1.1 mg/dl, albumin:2.4 g/dl, AST:598 IU, ALT:215 IU and CK:3415 U/L. Her C3, C4, ANA, ANCA, Anti-ds-DNA, lipid profile, TSH, free T4, cortisol, ACTH, C1 esterase activity and levels were normal. TORCH and salmonella serologies were both negative. Presence of severe eodema, hypoalbuminemia, hypotension, hemoconcentration and higher levels of AST and CK levels SCLS and secondary Rhabdomyolisis was diagnosed. She was treated with ýv alkaline fluids, prednisolone (1 mg/kg/day) and terbutaline (0.04 mg/kg/day). Her eodema was disappeared within five days and her laboratory parameters returned to normal within two weeks. She currently continues prohylactic terbutaline and teophyline therapy for 6 months without any further attack.

Conclusion: Although SCLS is very rare in childhood, it should kept in mind especially in cases presented with acute eodema, hypotension, hypoalbuminemia and hemoconcentration.

PP041

CHILDREN'S HEALTH AND SOCIO-ECONOMIC CHARACTERISTICS OF THE FAMILY OF INDIGENOUS PEOPLES OF SIBERIA

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Introduction: Status of indigenous peoples in recent decades is complicated by the adaptability of their traditional way of life to the current economic conditions. One of these peoples are Tofalars. According to the 2010 census, in 1131 Tofalaria live person. The purpose of the study of the incidence of child and adolescent population living in the territory Tofalaria and analysis of socio-economic factors family, forming health of the indigenous population.
Materials and methods: An in-depth medical examination of 326 children living in the Tofalaria. To assess the socio-economic factors conducted sample case study 38 families.
Results: In the structure of the incidence of child and adolescent population Tofalaria first rank place - diseases of the musculoskeletal system and connective tissue (25.6%). The second - the disease of the nervous system (13.3%). The third - the disease of the digestive system (13.2%). Indicator of pathological lesions it was 2371.2 per 1000. Socio-economic characteristics of the family: a complete family brought up 64.0% of the children. 38.5% - large families. More than 60% of the households surveyed live in private homes of poorly income level below the subsistence minimum for 1 family member in 65.4% of households.
Professional employment: 40.0% of fathers are unemployed, 52.0% of mothers are unemployed or housewives. Bad habits are 76.0% of fathers and 64.0% of mothers. All parents noted their children's health as "good" and "satisfactory", the presence of disease in children know 28.9% of respondents. And according to a medical examination in 90.0% of children have chronic diseases or functional abnormalities. With the majority (73.6%) seek medical help and get it for their children more than 1 time per year.
Conclusions: Set the negative socio-economic factors that are typical of the territory inhabited by indigenous people. Just found the low availability of health care for this population.

PP043

SCHUERMANN'S DISEASE

Sturua, Dali[1]; Mandjavidze, Nino[1]; **Adamia, Nino***[1]; Ghughunishvili, Mariam[2]; Gigauri, Tinatin[2]; Ubiria, Irma[1]
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[2]*Tbilisi State Medical University, Republic of Georgia*

Osteochondropathy - a condition affecting both bone and cartilage and characterized by abnormal enchondral ossification. Schuermann's disease (also called Scheuermann's kyphosis) is a condition that starts in childhood. It affects less than one percent of the population and occurs mostly in children by the age of 11 -18. The name of this condition comes from Scheuermann, the person who in 1921 described changes in the vertebral endplates and disc space that can occur during development and lead to kyphosis, or roundback deformity of the thoracic, or lumbar spine (upper back). Scheuermann's disease does not spread and is not really a "disease" but a condition that can arise during growth. It is more common in males and appears in adolescents usually towards the end of their growth spurt. Those who do not get proper treatment for the condition during childhood often experience back pain from the spinal deformity as adults.Causes of desease. Mounting evidence suggests wedging develops as a problem vertebral body grows. During normal growth, the cartilage around the vertebral body turns evenly and

completely to bone. If the change from cartilage to bone doesn't happen evenly, one side of the vertebral body grows at a faster rate. By the time the entire vertebral body turns to bone, one side is taller than the other. This is the wedge shape that leads to abnormal kyphosis. Other theories of how Scheuermann's kyphosis starts include: genetics,childhood osteoporosis, mechanical reasons. X-rays are the main way to diagnose Scheuermann's kyphosis. Taken from the side, an X-ray may show vertebral wedging, Schmorl's nodes, and changes in the vertebral end plates. Doctors use X-ray images to measure the angle of kyphosis.,diagnose Scheuermann's disease. A side-view X-ray can also show if the spine is flexible or rigid. The spine straightens easily when it is flexible. In patients with Scheuermann's disease, however, the curve stays rigid and does not improve by trying to straighten up.

PP044

EPIGLOTTITIS

Sturua, Dali[1]; **Adamia, Nino***[1]; Ghughunishvili, Mariam[2]; Mandjavidze, Nino[1]; Ubiria, Irma[1]; Chkuaseli, Nato[1]
[1]M.Iashvili Central Children Hospital, Tbilisi state medical university, Republic of Georgia;
[2]Tbilisi State Medical University, Republic of Georgia

Epiglottitis is inflammation (swelling) of the epiglottis - a flap located at the base of the tongue which stops food from going down the wrong way into the windpipe (trachea) when we are eating. As the epiglottis sits in a crucial place for proper breathing, if it becomes swollen it can cause serious breathing difficulties and is treated as a medical emergency. Caused by Haemophilus influenzae type B, it was also a disease of children aged 2-7 years. Patients younger than 1 year may have an unclear course of fever and respiratory distress. The distinction between croup, laryngotracheitis, and epiglottitis is more difficult in younger children. Fever (high temperature) is usually the first symptom. Someone with epiglottitis will also complain of a very sore throat. They may have a hoarse voice and pain on swallowing. Because of the pain on swallowing, they may drool saliva. Coughing is a less common symptom. f someone has suspected epiglottitis, they should be admitted to hospital immediately. It should be treated as an emergency. Epiglottitis is usually diagnosed by the typical symptoms. A procedure called a nasopharyngoscopy may be used, once you are in hospital, to help confirm epiglottitis. An X-ray of your neck is taken and this can show a swollen epiglottitis. Thumb sign is a manifestation of ano edematous and enlarged epiglottis which is seen on lateral soft-tissue radiograph of the neck, and it suggests a diagnosis of acute infectious epiglottitis.

PP045

A CHILD WITH AN EPIGASTRIC MASS AND UNEXPECTED OUTCOME

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Our case: We present a four year old Caucasian boy with two week history of abdominal pain and vomiting since five days. He was in considerable pain and the vomiting was of non projectile and non bilious nature. He had no bowel and urinary problems and was apyrexial and had lost the appetite. There was no anaemia, jaundice, clubbing , lymphadenopathy and paedal oedema. However, the abdominal examination revealed a mobile, firm, non tender mass 5cm x 5cm in the epigastric region with no hepatosplenomegaly. The rest of the examination was unremarkable. The urine dipstix was normal. The full blood count, c-reactive protein, urea, electrolytes and B-human chorionic gonadotrophin levels were within the normal limits. The abdominal x-ray and the ultrasound scan confirmed a translucent 5 cm mixed solid/cystic mass in the epigastric region. The further evaluation at tertiary centre confirmed the retroperitoneal mass as benign teratoma and underwent surgical excision. Unfortunately he had many complications intraoperatively and post operatively (injury to bile duct, pancreatitis, pseudopancreatic cyst, pancreatic insufficiency and renal calculi). He is on pancreatic enzymes, vitamins, other nutrients

and is awaiting to see a urologist. Discussion: Teratomas are benign germ cell tumours. Although teratomas may originate anywhere along the midline, they are most commonly found in sacrococcygeal, gonadal, mediatinal, retroperitoneal, cervicofacial and intracranial locations. Retroperitoneal teratomas are uncommon germ cell tumors in children and constitute 2-5% of all extragonadal tumours. They mainly present as abdominal mass with few other symptoms. Majority of the tumours are benign, situated on the left side and pararenal in origin. Occasionally these lesions are bilateral. There is association with some chromosomal anomalies eg. klinefelter's syndrome. Complete resection is the treatment of choice and outcome is generally favourable. Conclusion: In our case the mass was present in the epigastric region which is an uncommon location for a teratoma and should be considered in the differential diagnosis in children with epigastic mass. Since the tumour was benign, we had expected very good outcome contrary to our case. We would also recommend a genetic referral and regular follow up.

Genetics

PP046

LARSEN SYNDROME WITH SEIZURE- A CASE REPORT

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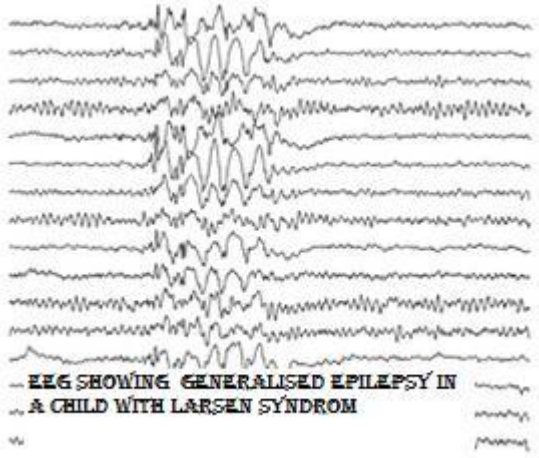
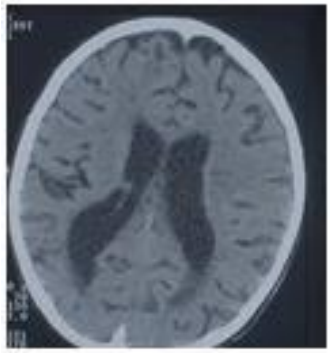
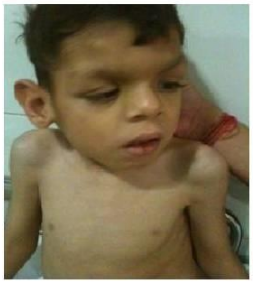
Chacha Nehru Bal Chikitsalaya, Delhi, India

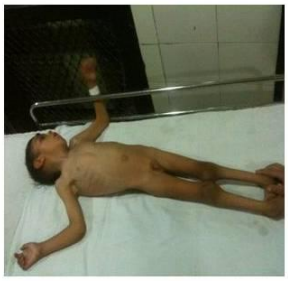


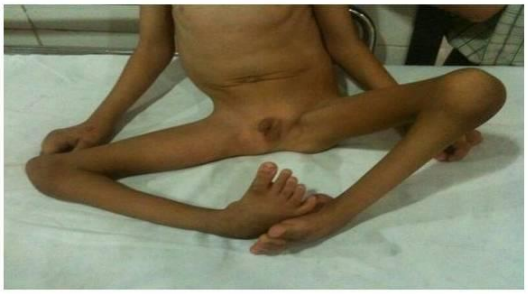


CEREBRAL ATROPHY

Larsen syndrome is a rare usually autosomal dominant disorder that occurs in about every 1 in 100000 children. Major symptoms include hypermobility, congenital dislocation, brachycephaly , cleft palate. It may rarely be recessive. We are describing a child who has been diagnosed as Larsen syndrome presented with seizure and mental retardation. Neurological complications are rare menifestations of Larsen syndrome. We report this child with rare syndrome, Larsen syndrome with previously unreported neurological complications







PP047

ALGORITHM OF RISK GROUPS FORMATION FOR HAVING CHILDREN WITH NEURAL TUBE DEFECTS AMONG REPRODUCTIVE AGE WOMEN AND DIFFERENTIATED APPROACH TO THE SPINAL DISRAPHIA PREVENTION

Kotova, Nataly; **Maichuk, Vladyslava***; Kononenko, Nataly
Odessa National Medical University, Ukraine

Introduction: Congenital defects of the neural tube (NTD) occupy first place in the structure of CNS congenital defects and a leading position among congenital malformations of all organ systems. NTDs are the leading cause of neonatal and infant mortality and children's disability.
Purpose: To develop an algorithm of risk groups formation for having children with neural tube defects among reproductive age women based on the detection of endogenous and exogenous risk factors and to offer a differentiated approach to fetal NTD prevention.
Materials and Methods: A retrospective analysis of risk factors in women who gave birth to children with NTD (175 women) compared with the control group (60 mothers of children without NTD , congenital malformations and other chromosomal aberrations) and a prospective analysis of the folate cycle metabolic disorders and MTHFR gene polymorphisms C677T and A1298C were carried out.
Results: The inclusion criteria for reproductive age women in risk groups for fetal NTD should be regarded as the identification of at least one of the following risk factors: burdened obstetric history on miscarriages and/or prenatal fetal death (OR = 3.4); living in polluted areas and the use of well water for cooking (OR = 2.7); family history of strokes, heart attacks, varicose disease, vessels thromboembolism and thrombosis (OR = 3.04); family history of gastrointestinal tract and/or reproductive system cancer (OR 2.9); family history of congenital malformations (OR 3.9); congenital malformations in other children in the family (OR 4.36); maternal age older than 35 years (OR = 2.1). When planning a pregnancy women from risk group are encouraged to identify levels of homocysteine and folic acid in the blood serum. Revealing hyperhomocysteinemia alone or in combination with low folate levels in the blood at preconception stage can be considered predictive of fetal NTD formation. The presence of hyperhomocysteinemia is the indication for MTHFR polymorphisms identification to determine preventive measures.

Conclusions: Formation of risk groups for fetal NTD among reproductive age women and detecting changes in folate metabolism, will differentiate preventive measures by determining the timing of the admission and doses of folic acid and dietary recommendations.

PP048

FEATURES OF DISTRIBUTION OF HLA -- LOCI OF THE I CLASS AT CHILDREN WITH LUPUS AMONG KAZAKH AND RUSSIAN POPULATION

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Introduction: Clinical polymorphism of the Lupus induces to searches of early predictive criteria of its current. Allelic options of genes of the main complex of a hystocomplimentary (HLA) first of all apply for a role of such markers.
Aim: To study ethnic features of a current and outcomes of a Lupus at children of the Kazakh population.
Methods: Antigenes of HLA system of A, B and C loci were defined at 62 children with Lupus, Kazakh nationality aged from 7 - 16 years. In control group included 393 healthy test donor of the same nationality. Definition of HLA phenotypes Lupus and persons of control group carried out in the standard microlymphotoxic test by specific typed of anti-HLA serums (Minsk). Frequency of anti-genes (F) calculated on a formula F = n/N. Existence of HLA-association of an anti-gene with a studied disease determined by the size of the relative risk (RR) calculated on a formula for small selections.
Results: The analysis of the received results showed that significant distinctions in comparison with control had HLA-A1 anti-genes (ð<0,001), HLA-B5 (ð<0,001), HLA-B7 (ð<0,001), HLA-B15 (ð<0,001), HLA-B35 (ð<0,001), HLA-CW3 (ð<0,001). Among them increase in frequency of an anti-gene of HLA-A1 and HLA-CW3 were reliable (Pkor. =0,01-0,08). In comparison with donors degree of positive association is revealed with HLA -- A1 (õ2 = 14,62, RR =3,04, ð <0,001), HLA -- B7 (õ2 = 6,16, RR =2,30, ð <0,01), HLA -- B15 (õ2 = 6,61, RR =2,51, ð<0,001), HLA -- CW3 (õ2 = 7,91, RR =2,91, ð<0,001) and negative associative connections with HLA -- B5 (õ2 = 6,29, RR =0,41, ð = 0,01), HLA -- B35 (õ2 = 7,06, RR =0,26, ð=0,01). Considering that fact that in our researches conditionally called four anti-genes of "risk" - HLA-A1,HLA-B7, HLA-B15, HLA-CW3 and two anti-genes of a protector - HLA-B5, HLA-B35 were found, they were compared with a position of attribute risk (aetiology and preventive fractions). It is thus established that the greatest contribution to development of a disease was made by HLA-A1 (RR=3,04, EF=0,32) anti-gene and vice versa, a certain contribution to resistance to a disease is made by HLA-B5 (RR=0,41,PF=0,21).
Conclusions: For the first time Existence and value of anti-genes of a hystocomlimentary of the I class (HLA-A1, - B7, - B15 and -- CW3) at patients of hard currency of the Kazakh nationality is established.

PP049

DENTINOGENESIS IN MUCOPOLYSACCHARIDOSIS

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Introduction: Mucopolysaccharidosis type I is an autosomal recessive inborn error of metabolism characterized by accumulation of incompletely degraded glycosaminoglycans leading to systemic impairment. Our report presents the oro-dental and radiographic findings in 04 patients with MPS I
Methods & Description: The examination of the Mucopolysaccharidosis type I affected children followed in our clinic reveals characteristic abnormalities such as hypoplastic peg-shaped teeth and dysplastic teeth and gingival hyperplasia. In all our patients, dental panoramic radiograph underlines these aspects.
Results & Discussion: The oral and dental findings of MPS I include hyperplastic gingiva, macroglossia, high-arched palate, short mandibular rami with abnormal condyles, spaced hypoplastic peg-shaped teeth with retarded eruption; and localized dentigerous cyst-like radiolucencies Guven et al.(Jan 2008) have investigated the ultrastructural and chemical properties of MPS I (Hurler) teeth: The dentin of the

primary teeth was characterized by extremely narrow dentinal tubules with an irregular wave-like pattern. The enamel-dentin junction was poorly shaped, micro gaps occurred and the enamel displayed an irregular arrangement of prisms. The enamel and the dentin had an abnormal protein structure and the dentin protein content was low. The mucopolysaccharidoses (MPS) are a prominent subgroup among the lysosomal storage diseases. The intra-lysosomal accumulation of glycosaminoglycans (GAGs) in these disorders induces a cascade of responses affecting cellular functions and maintenance of the extra-cellular matrix.
Consclusion: As well as skeletal problems, mucopolysaccharidoses' patients have dental with specific deformities. Teeth involvement is highlighted, having an eye to the possibilities of reversing these oro-dental changes with enzyme replacement therapy .

PP050

SCARCITY OF RARITY: A RECESSIVE FORM OF OSTEOGENESIS IMPERFECTA
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University Hospital of Setif, Algeria

Introduction: Among the constitutional bone diseases, Osteogenesis imperfecta (OI) depictsa group of genetic disorders characterized by bone fragility (severity ranging from perinatal lethal fractures to milder forms) and associated with extra skeletal disorders. Most of them are attributed to mutations of collagen type I - genes, but some rare and recessive forms are described
Case Presentation: The child was admitted for exploring pathological fractures since the age of 9 months The patient was a boy of non-consanguineous, symptoms-free parents Bone densitometry (MDGs) showed diffuse osteopenia with vertebral compression. Clinical assessment reveals normal, white sclera and the absence of dentinogenesis imperfecta. The radio-biological evaluation concluded tp the even rare recessive form of Imperfect Osteogenesis.
Discussion: Among the primitive causes of such severe osteoporosis, apart from the exceptional "idiopathic osteoporosis" ; different forms of OI are discussed; all of them characterized by bone fragility and deformity with growth deficit Abnormalities found in bone microstructure are mainly a low mineral density with enlarged inter-trabecular spaces and thinning of the cortex. The autosomal recessive form are much rare:new genes responsible for rare forms produce proteins that interact with collagen post-translationally for folding, modification, or cross-linking Almost the majority of non-classical OI types have an autosomal recessive inheritance and null mutations.
Conclusion: Autosomal dominant types of OI are caused by mutations in the type I collagen genes, while a number of newly identified non-collagenous genes are identified as the causes of scarce, rare forms like the reported one.

Sports Medicine

PP051

WATER ACTIVITIES AN EFFECTIVE LEARNING ENVIROMMENT FOR CHILDREN WITH VISUAL IMPAIREMENT
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[1]*West University Timisoara, Romania;*
[2]*CRAE Speranta Timisoara, Romania;*
[3]*Politehnica University, Slavici University Timisoara, Romania;*
[4]*Medicine and Pharmacy Victor Babes University Timisoara, Romania*

Introduction: Every visually impaired person must have the same opportunities to participate in sport activities. The lack of motor experience and confidence of blind children are high, especially in the water environment. Understanding the needs of a blind person, creating a safe environment, overcome the barriers represent a challenge for us.

Purpose: The general aims are to promote independence, safety, prevent postural disorders and to enhance the basic motor skills in water.
Material and methods: This study was conducted during last year, and the study lot was represented by a number of 10 children, aged between 4 and 8 years with premature retinopatia.To compare the results we used the Swimming Scale for Persons with Visual Impairments witch include: The basic motor skills in water and swimming styles (total immersion, swimming with aids, dog paddle, crawl, breaststroke, backstroke, snorkeling), Resistance (25-50 m with or without aids), Maintaining positions in water (floating in supine position, floating in prone position, floating in one side position, balance), Basic swimming behavior (walk, jumping in the water, running, diving), Psychomotricity (breathing, legs-hand coordination), Spatial orientation and mobility in swimming-pool area (recognizing the teacher's voice, directions, mobility and routs).
Results: The final results shows the fact that all the parameters increased with significant statistic difference ($p<0,05$) after the swimming program: spatial orientation and mobility in swimming-pool area, psychomotricity, basic swimming behavior, maintaining positions in the water, resistance, the basic motor skills and swimming styles. In breaststroke style with the head out of the water the blind person can orientate easier and they don't skip a breath. Crawl swimming consumes a lot of physical energy, kids like this style because it's fast, but they have problems in maintaining the straight position. Backstroke swimming style: we recommend this style in order to avoid back problems like kyphosis. Breathing is very easy because the mouth and nose are always out of water. With the ears in the water the orientation is very difficult to realize.
Conclusions: Water provides an effective learning environment for a child with vision impairment. After experimentation they showed us that their skills are like the skills of children without visual impairment and they can learn fast to swim. It is important that they were socially accepted, but also we promoted general well-being, enjoyment and socialization. Swimming gave a real sense of freedom while moving through the water increasing their psychomotricity.

Nephrology

PP052

GENETIC POLYMORPHISM OF IL-8-251 AMONG PEDIATRIC PATIENTS WITH URINARY TRACT INFECTION

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Introduction: Urinary tract Infection (UTI) in children is characterized by a variety of clinical manifestations. Potential cause of different phenotypes formation is a genetically heterogeneous immune response. In view of the central role of IL-8 in the pathogenesis of UTI, the IL-8 gene polymorphism may be an important factor in determining of UTI phenotype.
Purpose: To study the frequency of occurrence of polymorphic variants of the gene encoding IL-8 in children with UTI and the impact of polymorphism of IL-8 on the pathology.
Materials and methods: The study included 60 patients with UTI from 3 to 18 years. 30 children without clinical symptoms of UTI and without anamnestic data about renal dysfunction were recruited as control group. Materials for molecular genetic analysis were DNA samples, which were isolated from the urine. Nucleotide polymorphism detection estimated the carrier alleles of IL-8-251A, followed by determination of genotype A/A, A/T and T/T. Statistical data processing was performed using the program package Statistica 6,0.
Results: Nosologic groups formed: 15 children with acute cystitis, 24 - with acute pyelonephritis and 21- with chronic pyelonephritis. Analysis of the distribution of genotypes demonstrated that normal genotype of IL-8 -251TT was found in (36,6 ± 6,2)% of patients, heterozygous phenotype of IL-8 251 AT - in (60,0 ± 6,3)%. Compared with the control group, we detected a significant difference ($p<0,005$) in the distribution of genotypes: genotype IL-8 251 TT in the control group was determined at (66,6 ± 12,1)% of children, IL-8-251 AT - at (33,4 ± 12,1)%. Established a positive association between the genotype IL-8-251

AT and UTI occurrence: RR = 2,8; ÷2 = 9,6, p<0,002. Analysis of gene polymorphisms of interleukin-8 (251-AT) based on the clinical forms of UTI showed that the most frequent (71,4 ± 9,8%) it was determined in patients with chronic pyelonephritis (p<0,005), while in patients with cystitis was identified (46,6 ± 12,8)%.
Conclusions: Heterozygous genotype IL8 -125 -AT can be used as a criterion of the onset and course of UTI. Identification of prognostic criteria of UTI phenotypes in children, taking into account the genotypic polymorphism of IL-8 requires further study.

PP053

RENAL BLADDER ULTRASONOGRAPHY AND LATE 6 MONTH-DMSA SCAN SCREENING FOR HIGH GRADE VESICOURETERAL REFLUX AFTER FIRST FEBRILE URINARY TRACT INFECTION IN INFANTS AGED LESS THAN ONE YEAR

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Introduction: Until now the best approach for radiologic investigation in a child after first febrile urinary tract infection (UTI) remains a contentious issue. Many advocates agreed that the detection of high grade vesicoureteral reflux (VUR) remained important because the increased risk of recurrent UTI and renal scars.
Purpose: To study the ability of renal bladder ultrasonography (RBUS) and late 6 month- technetium 99Tc -dimercaptosuccinic acid (DMSA) renal scan in detecting high grade VUR after first febrile UTI in infants aged less than one year.
Methods: A total of 387 infants aged less than one year with first febrile urinary tract infection who completed the diagnostic follow up of RBUS, voiding cystourethrography (VCUG) and late 6 month-DMSA scan were enrolled into the study. The ability of RBUS and late 6 month-DMSA scan in detecting high grade VUR including cost and benefit were assessed.
Results: Abnormal RBUS were identified in 95 (24.5%) infants. Vesicoureteral reflux were identified by VCUG in 79 (20.4%) infants, of which 8 (2.1%) infants were high grade (grade IV- V) VUR. Abnormal renal parenchyma including renal scars were identified by late 6 month-DMSA scan in 22 (5.7%) infants. The sensitivity of abnormal RBUS and late 6 month-DMSA scan in detecting high grade VUR were 50% and 87.5% with benefit in reducing the unnecessary VCUG performed 75.5% and 94.3% respectively. Abnormal RBUS had higher sensitivity in detecting abnormal DMSA scan than normal RBUS (68.2% and 31.8% respectively).
Conclusions: Fifty percent of high grade VUR and 31.8% of abnormal late 6 month-DMSA scan infants were not detected by RBUS screening after a first febrile urinary tract infection (AAP 2011 recommendation). Although abnormal late 6 month-DMSA scan had higher sensitivity and specificity in detecting high grade VUR and also the ability in detection of renal scars, benefit of the method was limited due to high cost and radiation exposure.

PP055

THE IMPORTANCE OF RAISING CHRONIC KIDNEY DISEASE (CKD) AWARENESS FOR YOUNG PEOPLE AND PARENTS, COPING AND HOW USING SOCIAL MEDIA CAN INFLUENCE CARE AND SHARED-DECISION MAKING DISEASE -- ORIGINAL ARTICLE

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Background: Chronic Kidney Disease (CKD) (stages 4-5) in young people is complex, with many requiring Renal Replacement Therapy (RRT). Young people may be disenfranchised by perceptions of helplessness and feelings of powerlessness against a backdrop of diminished health, consequently impacting on

capacity for effective coping. Not surprisingly, young people and parents/ guardians seek online support through social media which offers advantages over standard forms of engagement/ education.
Aims: To highlight the importance of raising awareness for CKD for young people and parents, coping and how using social media can influence care and shared-decision-making. The claim here is that future clinicians are unable to 'best practice' unless they get more involved in patient-led initiatives and better appreciate how young people with CKD and their parents use the internet/ social media as an effective learning resource.
Discussion: Providing the Renal Patient Support Group (RPSG) Facebook example, this article informs how using social media can help raise CKD awareness. The RPSG can positively influence young people, parents/ guardians to gather resources, supporting them to develop self-care and enhance shared-decision-making, empowering them to adopt coping strategies.
Conclusion: There is an increasing need to raise CKD awareness, enhance coping strategies for young people and highlight how using the internet, online forums and social media platforms can be resourceful. The RPSG has set a tone from an international perspective and social media is becoming more widely used as a first port of call for information. Professionals should have an understanding of what resources are available to young people and parents/ guardians.
Keywords: Social Media, Chronic Kidney Disease, Facebook, Coping, Internet, Young People

Haematology & Oncology

PP056

MOLECULAR BASIS OF ALPHA THALASSEMIA IN QATARI PEDIATRIC POPULATION

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Introduction: Alpha Thalassemia is a microcytic anemia characterized by the down regulation of Î±-globin synthesis. Premature destruction of RBCs in the bone marrow ensues, resulting in deficient erythropoiesis. Mutations in the globin gene resulting in quantitative or structural changes in the globin chain can be due to sequence variations, deletions of one or more of the structural genes, and deletions extending beyond the globin cluster. The frequency, and types of Î±-Thalassemia mutation among children and adolescent in the state of Qatar are not known yet.
Objectives: The aim of our study was look into the molecular basis of the Î±-thalassemia gene among Qatari children and adolescents. The frequency, and types of Î±-thalassemia mutations in the pediatric population Methods: School aged Qatari children between the ages of 5 and 15 exhibiting laboratory findings suggestive of microcytic anemia were pooled from Qatari public schools. Those with a hemoglobin (Hb) of less than 12, a mean corpuscular volume (MCV) of less than 80, iron studies within normal range, and a hemoglobin electrophoresis that ruled out Î²-thalassemia, were narrowed down to a group of 150 children and adolescents with the suspicion of Î±-thalassemia. The patients were screened for deletions in -Î±3.7, the most common Î±-thalassemia deletion. Subsequent screenings for deletions in Î±-5nt, Î±PolyA1 (Î±T-Saudi.), and Î±PolyA2, Î±-thalassemia deletions prevalent in neighboring Middle Eastern countries, was also performed Results: 37.9% of the anemic group was positive for the -Î±3.7 deletion. 4.5% tested positive for the Î±PolyA1 deletion, and 1.5% tested positive for the Î±-5nt mutation. None of the children exhibited any changes in alpha poly A2 We went on to further test 59 samples that revealed no mutations initially sequencing method results revealed that Sequencing for alpha 1 and alpha 2: among 59 samples : 43 samples shows normal sequencing and16 samples show no result in sequencing. So we did MLPA for the 16 samples and the results showed: * 2 samples show compound heterozygous (HT-RW) and (HT-20.5) 12.5% * 2 samples show compound heterozygous (HT-RW) and (HT-20.5) 12.5% * 2 samples show African polymorphism. 12.5%

Conclusion: Our results suggest that a significant number of the Qatari pediatric population exhibits mutational changes responsible for the increasing prevalence of Î±-thalassemia in the population. 48% of the children pooled exhibited mutation suggestive of a-thalassemia. This suggests the possibility of other existing mutations in the Qatari pediatric population that are yet to be elicited. Further testing of the 59 samples revealed new mutations. We are currently working on exploring new mutations of Alpha Thalassemia in the Qatari populations

References: Al-Allawi N, Jalal S, Rasheed N, Bayat N, Imanian H, Najmabadi H, Faraj A. The Spectrum of Î±-Thalass

PP057

EFFECT OF AN EDUCATIONAL HEALTH PROGRAM ON COPING STRATEGIES FOR FAMILY CAREGIVERS OF CANCER CHILDREN RECEIVING CHEMOTHERAPY

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The growing interest in shortening hospital stays and shifting care to home places considerable responsibility on family caregivers. In fact, family caregivers assume approximately 50%--55% of the total care required for children with cancer at home. They are expected to meet children' needs in both physical and psychological dimensions. In addition, they need to balance the responsibilities of care giving role with their own/family needs and demands, which is one of the most challenging problems facing Family caregivers of children with cancer that deteriorate their quality of life.
The aim of this study was to contribute to improvement of the coping strategies of family caregivers of cancer children receiving chemotherapy.
The study was carried out at the Hematology and Oncology Unit in the pediatric department at Zagazig University Hospital, Sharkia governorate using a quasi experimental design on convenience sample of 78 family caregivers of children having cancer and on chemotherapy.
Data collection tools included an interview questionnaire form and scales for coping, anxiety, depression and stress. The researcher developed, implemented, and evaluated a health educational program for family caregivers (Family guide for coping with cancer child receive chemotherapy "FGCCCC").
The results revealed that the family caregivers have deficient knowledge about the child disease and its treatment, associated with high levels of anxiety, stress, and depression, and low coping before intervention. The implementation of the program led to significant improvements in caregivers' knowledge, most coping strategies, anxiety, stress, and depression ($p<0.001$).
The study recommends dissemination of the educational program to other pediatric oncology hospitals, with involvement of other family members in the program.

PP059

EFFECT OF PROPRANOLOL IN A 3 MONTH OLD GIRL WITH INFANTILE FACIAL HEMANGIOMA

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Introduction: Infantile hemangiomas are the most common benign tumors of infancy. Common treatment indications include airway obstruction, ulceration, secondary infection, visual impairment or cosmetic problems. Besides the steroids, interferon, and vincristine have been used in the medical treatment, Although, the exact mechanism is not clearly known, oral propranolol has been widely used in the treatment of infantile hemangioma since 2008. This report presents a 3-month-old patient with infantile

hemangioma in the right ear and the face treated with oral propranolol therapy, accompanied by brief review of literature with treatment options.
Case report: A three month girl represented with facial hemangioma affecting the right side of her face. She had no nasal obsruction or respiratory problem. Her otolaryngeal examination was normal. In laboratory examination: Hb:9.5 g/dl, WBC:11.200 mm3, Plt:291.000 mm3, MCV:86.6. Her abdominal ultrasonography and echocardiograpgy was also normal. We decided to treat her with propranolol (2 mg/kg/day) and her lesion was dramatically decreased within a year without any significant side effect.
Conclusion: Propranolol has antiangiogenesis and antitumoral effects. Besides, it has generally tolerable and non-significant side effects. These findings suggests that it is an good trearmet of choice in infantile hemangioma.

PP060

ACUTE LYMPHOBLASTIC LEUKAEMIA IN A CHILD PRESENTED WITH HYPEREOSINOPHILIA AT DIAGNOSIS
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Introduction: Eosinophilia occurs in a wide variety of disorders and the most common cause of eosinophilia worldwide is helminthic infections. Additionally, eosinophilia has been reported as a rare presentation of acute lymphoblastic leukemia (ALL). We present the case of a 9-year old boy demonstrated leukocytosis with severe eosinophilia. After clinical work-ups, a final diagnosis of ALL was made.
Case: A nine year old boy was admitted to emeregency department after falling from slides. On physical examination, he had a 3 to 4 cm echymosis at his right scapular area. His complete blood count showed a WBC of 19.770/mm3 with 58% eosinophilia, a platelet count of 177 000/mm3, and an ESR of 52. A triple stool examination was negative for any type of parasite, his serological results were also negative for toxocara and fasciola hepaticum. His chest computed tomography and abdominal ultrasonographic evaluation was normal. He had no history of allergic disease or any drug usage. He was hospitalised fort he evaluation of malignancy. One day after hospitalisation his WBC was 15.540/mm3 with 72% eosinophilia, a platelet count of 1126 000/mm3. At this point a bone marrow aspiration was performed and bone marrow flow cytometry analysis revealed a diagnosis pre-B cell ALL. After the diagnosis the standard protocol of chemotherapy for lymphoblastic leukemia was subsequently started.
Conclusion: Eosinophilic presentation of ALL is a rarely documented in the literature and most commonly reported patients with significant eosinophilia and ALL are adults. Hypereosinophilic syndrome has been previously described in allergic diseases, parasitic infections, hematologic and oncologic disorders. In case of an unexplained peripheral hypereosinophilia, a detailed differential diagnosis must be done. In conclusion, clinicians should keep in mind that eosinophilia can be part of the overall pattern of an oncological disorders including ALL.

PP062

A SAUDI BOY WITH COMBINED FACTOR V AND FACTOR VIII DEFICIENCY : A CASE REPORT
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Abnormalities of Hemostasis that leads to clinically significant bleeding are divided into primary and secondary defects. Primary defects include those that are related to platelets number or functional defects and Von Willebrand Factor defects. Secondary Hemostasis defects are those related to factor deficiencies. Of the secondary defects, the most common are those of single factor deficiencies;

such as FVIII deficiency and FIX deficiency. Combined Factors Deficiencies are rare. Of the well described combined deficiency of factor V and factor VIII which is inherited as an autosomal recessive disorder. It is

a bleeding disorder that occurs due to the reduction in activity and antigen levels of both factor V (FV) and factor VIII (FVIII). Combined FVIII and FV Deficiency is extremely rare disorder that is estimated to occur at a rate of 1:1000,000. Here, we present a case of Saudi boy complaining of frequent oral mucosa and nasal bleeding.
The screening coagulopathy showed prolonged Activated Partial Thromboplastin Time (APTT) and Prothrombin Time (PT) as well as increased INR. The specific-factor assays showed plasma levels of factor V and factor VIII were 5% and 7% respectively which confirms the diagnosis of combined factor V and factor VIII deficiency (F5F8D).

Infectious Diseases

PP063

VITAMIN D ASSOCIATED TO FLU VACCINE IN CHILDREN

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Introduction: Influenza disease is one of the major health concerns in pediatrics. One of the most recently suggested effects of vitamin D is preventing infectious diseases.
The aim of our study was to compare flu vaccine effect to flu vaccine associated to vitamin D (100000UI per os) in reducing respiratory tract infections in children.
Patients and Methods: 347 healthy children aged 2 to 5 years randomly selected from different regions in Lebanon between September-october 2012 and October 2013 were included; Upper and lower respiratory tract infections following vaccination were noted .Our results were analyzed using SPSS program (Chi-square and T-test)
Results: Out of a total of 347children included,150 received flu vaccine and 197 received flu vaccine plus vitamin D .
88 children from both groups manifested upper respiratory tract infections and 64 had lower respiratory tract infections. The statistical analysis revealed no significant difference between the two groups concerning the upper respiratory infection (P=0,207)and a significant difference between groups for the lower respiratory tract infection (P=0,001)
Conclusion: Coupling vitamin D to flu vaccine provides no protection against upper respiratory tract infections but provides an effective strategy to decrease the rate of lower respiratory tract infections in children 2-5 years of age.

PP064

SOME HEMATOLOGICAL & BIOCHEMICAL CHANGES IN CHILDREN WITH SEVERE MALARIA WHO PRESENT WITH GASTROENTERITIS IN ELOBIED, WESTERN SUDAN

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Introduction: Despite extensive control programs, malaria continues to devastate Sudanese children. Acute severe malaria, one of malaria serious presentations, causes gastroenteritis as a result of micro vascular changes in the splanchinic blood vessels. In Sudan, no one tried to assess how severe malaria that presents with gastroenteritis affects body homeostasis.
Purpose: To assess some hematological and biochemical changes in Sudanese children with severe malaria who present with gastroenteritis Methods: This cross sectional descriptive hospital based study was carried out over an 18- month period (May.2008 -- Nov.2009), 198 patients who met the World Health Organization (WHO) criteria for sever malaria, were enrolled in this study
Results: Nearly 60% were males. 73% were children below 5 year. Vomiting and diarrhea were reported in 61.7% and 24.4% respectively. 7% of patients who had vomiting and diarrhea were hypoglycemic (blood

glucose level<50mgldl)-p=0.001. Blood urea levels of > 50mgldl was reported in 7.1% of all patients who had vomiting. While those who had diarrhea were 2.5%. Hemoglobin of less than 9g|dl was reported in nearly 40% of patient who had vomiting and diarrhea. PCV (packed cell volume) of less than 26% was seen in 42% of patient with vomiting and in 31% of those with diarrhea. Leukopenia was registered in 7.1% of patients with gastroenteritis.
Conclusions: It seems clearly from the present study that, severe malaria with gastroenteritis significantly affects some hematological and biochemical indices in the body. Therefore, the management of severe malaria needs to be reformed.

PP065

THE ROLE OF RESPIRATORY VIRUSES IN COMMON COLD ENT- COMPLICATIONS.
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Introduction: The rhinosinusitis (RS) and acute otitis media (AOM) are the most frequent ENT-complications of common cold in children. The role of respiratory viruses --the common cold agents- is discussed more often in latest years as causative agents both for RS and AOM.
Purpose: The purpose of our research was the different respiratory viruses frequency determination in aspirates from paranasal sinuses (in RS patients) and discharge from tympanum (in acute purulent otitis media (APOM) patients).
Materials and Methods: The samples for microbiological investigations were taken from paranasal sinuses (maxillary and ethmiod preferably) and tympanic membrane perforation (spontaneous or artificial).
We used PCR technique (on - real-time) for detection such viruses as: RS-, metapneumo-, corona-, boca-, rhino-, parainfluenza-, adeno- and entero (for APOM only).
Results: The 78 RS and 44 APOM patients were under our observation. The 99 aspirates from paranasal sinuses and 58 middle ear discharge samples (suitable for microbiological investigations) were received. The microbiological investigations were revealed pure viral etiology in 16% RS and 34% APOM; mixt (viral-bacterial) - in 26% RS and 25% APOM; bacterial - in 34% RS and 13,7% APOM and unknown in 24% RS and 27,3% APOM. The RS leading viral agent was rhinovirus (42,9%), adeno- and RS-viruses (19,1%) were at second and parainfluenza virus (14,3%) at third place. The same "top list" for APOM -- RS (47,7%), rhino- and parainfluenza viruses (17,8%) and adenovirus (10,8%). The most common bacterial agent in both pathology was S.pneumoniae (29,3% RS/47,7%APOM). The second place occupied H. influenza in RS (12%) and ß-heamolyticus Streptococcus A (13,7%) in APOM patients. The viral and bacterial combinations were depended on pathology, for example, RS-virus was determined individually in paranasal sinuses aspirates but adjoined with different bacterial agents (S.pneumoniae, ß-heamolyticus Streptococcus A, P.aeroginosa) in middle ear discharge.
Conclusions: The most frequent etiology of RS is bacterial (34%) and viral (34%) for APOM. The leading viral agents were rhino- (for RS) and RS- (for APOM) viruses. The leading bacterial agents was S.pneumoniae for both pathology.

PP066

VACCINE SAFETY CONTROVERSIES: ADDRESSING PARENTS' CONCERNS AND COMMUNICATING THE IMPORTANCE OF VACCINES
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Background: Immunization has been hailed as one of the most important health interventions of the 20th century. The CDC estimated in 1999 that pediatric immunizations have been responsible for the worldwide annual prevention of about 3 million deaths in children. Despite these achievements, there is a growing wave of parental refusal of immunization and vaccine-refusal has become an important issue that

faces pediatricians. Ironically, with vaccine-preventable diseases being at or near record lows, they are no longer serving as a reminder of the benefits of vaccination. Parents are shifting from fear of disease to fear of adverse events. In a 2011 survey of 1552 parents of children younger than 18 years living in the United States, > 50% were concerned about serious adverse events and 25% believed that some vaccines cause autism. In another survey of 748 parents, 13% reported following an alternative vaccination schedule.

Objective: This will be an oral power point presentation that will address historical vaccine safety controversies. The presentation will address several historic incidents related to vaccine manufacturing as well as erroneous vaccine-related studies that may have contributed to the growing debate about vaccine safety and issues like autism etc.

These incidents are: The 1955 Cutter incident (America's first polio vaccine); the 1970's British study raising concerns about DTP and its Pertussis component that may cause permanent brain damage; the 1998 Wakefield study about MMR vaccine and autism, and the 1999 cases of intussusception and RotaShield. The speaker will also address other areas of parents' concerns related to multiple vaccines, the growing number of injections, the role of the media in dealing with vaccine safety especially when it involves celebrities, and the role of vaccine monitoring and surveillance systems in the United States.

PP069

INVASIVE MENINGOCOCCAL DISEASE -- UNUSUAL DEVELOPMENT

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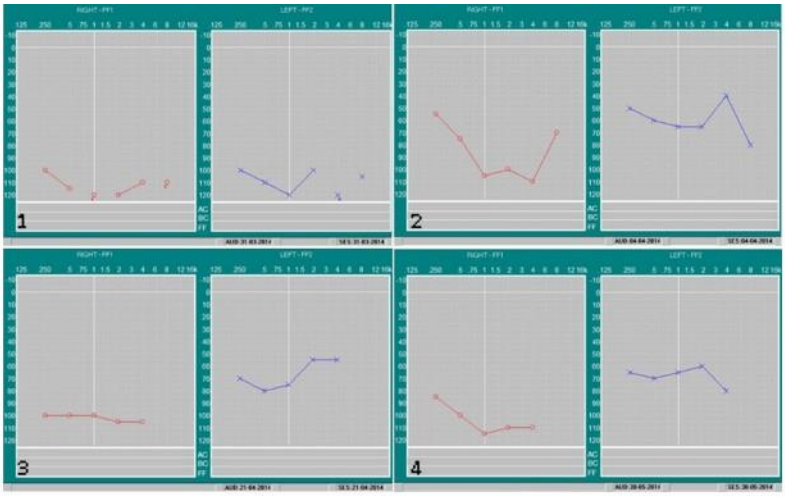
Introduction: Bacterial meningitis still generates substantial morbidity and mortality, despite vaccination and effective treatment. Neurosensory hypoacusis occurs in 11% of cases (bilateral and severe in 5%), having as risk factors ≥2 day evolution before diagnosis, ataxia, no petechial exanthema, glycorrhachia ≤10.8mg/dL and S. pneumoniae as agent.

Case description: A 6-year-old girl, previously healthy, was observed in the emergency department on day 4 of illness with fever (max 39ºC), vomiting, diarrhoea and prostration. She was drowsy, subfebrile, dehydrated, with neck stiffness and no rashes or petechiae. The analytical study revealed leukocytosis with neutrophilia (30.200/uL -- 92%), C-reactive protein 356.1mg/L and metabolic acidosis (pH 7.26). Clotting study was normal. The clinical diagnosis of meningitis was confirmed by cloudy CSF, with 36.000/uL leukocytes (87.6% PMN), 1mg/dL glucose and 194.6mg/dL protein. Meningococcal disease was established by isolation of Neisseria meningitidis serotype Y in CSF and blood. Medicated with ceftriaxone (14 days), vancomycin (4 days) and dexamethasone (2 days). On hospital day 5, cerebellar ataxia was detected and was submitted to head CT scan (normal). Bilateral hearing loss, more severe on the right, was noted and confirmed by audiogram. She was initiated on methylprednisolone (5 days), with very slight improvement, to be continued at home with betamethasone. Multidisciplinary follow-up has been arranged, with indication for cochlear implant on the left.

Discussion: In Portugal, N. meningitidis serotype Y remains rare, but emerging, albeit without specific immunization, contrarily to other bacterial meningitis agents. Clinical presentation and sequelae in this case underline the possible complications of bacterial meningitis and the consequent risk of neurodevelopment impairment, school learning and behavioural changes and therefore the need for multidisciplinary follow-up.



Audiograms

PP070

BURDEN ON PARENTS OF HAVING A CHILD HOSPITALISED WITH SEVERE RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION

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Introduction: RSV disease remains a significant cause of hospitalisation in young children. However, the impact of RSV-hospitalisation on parents' quality of life and finances is not well documented. Purpose: To identify the factors and issues related to the burden on parents of having a child hospitalised for RSV.
Materials and Methods: In part 1 of a 2-part study, 5 focus group meetings were held: 3 in Spain and 2 in Italy. Each meeting involved at least 4 unrelated parents of RSV-hospitalised children and 2 healthcare professionals (HCPs) experienced in RSV for complementary perspective. At each meeting, participants were asked to write down any factors/issues that come to mind relating to: 1. Effects on child's life; 2. Effects on family's life; 3. Parental coping mechanisms; 4. Interaction with HCPs; 5. Financial implications; and 6. On-going issues (child/parent/family). The collated results were analysed to determine the key factors/issues contributing to parental burden.
Results: 24 parents and 11 HCPs (8 doctors, 3 nurses) attended the focus groups. 30 key factors/issues were identified encompassing personal, family and social life, medical, and financial aspects (Table 1). The 5 most frequently reported factors/issues were: 1. Positive and negative contact with HCPs (11.6% of total responses); 2. Parental anxiety and stress (11.0%); 3. Extra financial costs, e.g. travel to/from hospital (9.6%); 4. Issues around treatment, e.g. invasive procedures (9.3%); and 5. On-going health issues, e.g. recurrent wheezing (6.5%).
Conclusions: A number of factors are associated with the burden to parents of having a child hospitalised with RSV. How the HCPs managing the infant interact with the parents may have a significant impact on parental welfare. The results will be used to inform the on-going development of a structured questionnaire for more detailed research in both countries (part 2).
Table 1: Key issues/factors associated with burden to parents of their child's RSV-hospitalisation:

Personal		Family/social life		Financial		Medical	
Issue/factor	% responses	Issue/factor	% responses	Issue/factor	% responses	Issue/factor	% responses
Anxiety/stress	11.0	Family life	4.8	Extra costs	9.6	HCP contact	11.6
Lack of knowledge	3.8	External help	4.3	Working life	3.3	Treatment	9.3
Well-being	3.3	Social life	3.2			On-going health	6.5
Guilt	0.3	Separation	2.8			Admission	4.1
		Child's stress	2.6			HCP stress	2.8
		Child's routine	2.3			Feeding	2.7
		Normal contact	1.8			Diagnosis	1.6
		Parent-child relationship	1.7			Child's development	1.5
		Child's activity	0.9			Breathing difficulties	1.1
		Special care	0.9			Healthcare visits	0.7
		Hospital family facilities	0.4			Isolation	0.5
						Prematurity	0.4
						Mortality	0.4

PP071

SPANISH AND ITALIAN PARENT PERSPECTIVES ON THE BURDEN ASSOCIATED WITH HAVING AN INFANT HOSPITALISED WITH SEVERE RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION

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Introduction: RSV disease is a leading cause of hospitalisation among infants. However, there is limited information on the impact of RSV-hospitalisation on parents' quality of life and finances. Purpose: To identify the key issues relating to the burden to parents of having an infant hospitalised with RSV and whether parent perspectives differ between Spain and Italy.
Materials and Methods: As the first part of a 2-part study, 5 focus group meetings were held, 3 in Spain (Bilbao and 2 in Madrid) and 2 in Italy (Turin and Verona). Each meeting was attended by at least 4 unrelated parents of RSV-hospitalised children and 2 healthcare professionals (HCPs) experienced in RSV for complementary perspective. Participants at the meetings were asked to write down any factors/issues they could think of relating to: 1. Effects on child's life; 2. Effects on family's life; 3. Parental coping mechanisms; 4. Interaction with HCPs; 5. Financial implications; and 6. On-going issues (child/parent/family). The key factors/issues raised in each country were compared.
Results: 14 parents and 7 HCPs participated in the Spanish meetings and 10 parents and 4 HCPs the Italian meetings. A total of 30 key factors/issues were identified encompassing personal, family and

social life, medical, and financial aspects, 28 of which were common to both countries. Of the top 10 factors/issues raised, 6 were common between Spain and Italy (Table 1). Parental anxiety/stress, positive and negative contact with HCPs and extra costs, such as travel to/from hospital and parking, formed 3 of the top 4 factors/issues in both countries.

Conclusions: The key factors impacting on the burden to parents of having a child hospitalised with RSV are broadly similar in Spain and Italy. Part 2 of the study will use the combined results to inform the on-going development of a structured questionnaire for more detailed research in both countries. Table 1: 10 most frequently reported issues/factors associated with burden to parents of their child's RSV-hospitalisation:

Spain		Italy	
Issue/factor	% responses	Issue/factor	% responses
Parental anxiety/stress*	13.0	HCP contact*	10.4
HCP contact*	12.8	Extra costs*	9.5
Treatment concerns*	10.9	Parental anxiety/stress*	9.0
Extra costs*	9.7	On-going health*	8.3
Family life*	5.8	Treatment concerns*	7.7
Lacking knowledge	5.4	Needing external help	6.0
Admission	5.2	HCP stress	4.5
On-going health*	4.8	Social life	3.9
Parental well-being	2.9	Working life	3.9
Child's routine disrupted/Separation	Both 2.8	Family life*	3.8
Others reported (=19)	26.7	Others reported (=18)	33.0

* = Common issues/factors

PP072

THE SOCIOECONOMIC CHARACTERISTICS OF ROMANIAN CHILDREN WITH CHRONIC VIRAL HEPATITIS

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Introduction: Chronic viral hepatitis represents a public health issue, being one of the most common infectious diseases worldwide. In Romania the prevalence of the hepatitis B and C viral infections is still high. This infection in children results in a significant burden on the economy and health system of the affected countries.

Purpose: The study aimed to evaluate the socioeconomic characteristics of pediatric patients with chronic viral hepatitis B and C.

Materials and Methods: The authors present preliminary data from an ongoing prospective study. From January 2014 to August 2014 a number of 27 children with chronic viral hepatitis were evaluated in the Pediatrics Department of "Grigore Alexandrescu" Emergency Children's Hospital, Bucharest, Romania. Questionnaires were applied to the patients' families in order to establish their socioeconomic status.

Results: Out of the 27 children evaluated, 19 were diagnosed with chronic hepatitis B and 8 with chronic hepatitis C. The median age in the study group was 11.07 years. The sex ratio was male/female = 1.25/1. 59% came from urban areas, the urban to rural ratio being 1.45/1. According to the World Bank, Romania is considered an upper medium income country with an average medium wage of 1552 RON (equivalent of 350 Euro)/month. 66% of the patients came from families with an income ranging from 1000 to 4000 RON/month (the equivalent of 220 to 900 Euro). All children included were in school. The children's parents received a mean of 9.7 years of education. In average 4.2 persons inhabit the household. The mean number of people/houseroom was 1.9. 34% of the families do not have indoor toilet and washing facilities.

Conclusions: Most of the children with chronic viral hepatitis came from urban areas and from medium income families. All patients were in school. Most parents were educated up to secondary school. A significant percentage of families do not have appropriate indoor toilet and plumbing facilities.

PP073

DIAGNOSIS AND MANAGEMENT OF VISCERAL LEISHMANIASIS IN TUNISIA

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Introduction: Visceral leishmaniasis (VL) is a parasitic disease whose incidence tends to increase in recent years especially in young children. The aim of our study was to evaluate its clinical and therapeutic features in children.
Materials and methods: We conducted a retrospective study of all cases of VL hospitalized in the child department B on a period of 10 years and a half (January 2004 - June 2014). We analyzed clinical and para-clinical data for each child. The therapeutic procedures and outcome were also registered.
Results: Twenty-five patients were collected. They were aged 26 months on average (7 months - 10 years old). Patients come mainly from the northwest of Tunisia (72%). Their complaints were dominated by fever (72%) and abdominal distension (28%). Physical examination found fever, splenomegaly and pallor in all cases. The blood count showed pancytopenia in 14 cases and bicytopenia in 11 cases.
Neutropenia was severe (<500/mm3) in 6 cases. Hemolytic anemia was found in 4 cases. The nadir of thrombocytopenia was 6000/mm3. All patients had had a myelogram. It was practiced twice in 2 cases. It showed the body of Leishmania in 24 out of 27 cases. Serology of Leishmaniasis was required in 5 cases and was positive in all cases. The PCR and the Western blot were performed in respectively one and two cases. They were positive in all cases.
The diagnosis was established after 6 days on average (2-16 days). All patients received meglumine antimoniate during 28 days. A macrophage activation syndrome (MAS) was sought in all cases and confirmed in 4 cases. It caused death in one case. One patient has relapsed after 5 months. His VL was diagnosed by PCR and treated by liposomal amphotericin B.
Conclusion: VL should be systematically suspected in any febrile pancytopenia. The diagnosis is provided by myelogram. The "Western blot" has a high sensitivity and specificity. However, it is expensive and cannot confirm MAS, a rare but a serious complication.

PP075

DENGUE ENCEPHALITIS : AN UNUSUAL ENTITY

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Introduction: Dengue fever also known as breakbone fever is an aroboviral infection and is seen most commonly in the developing countries. Common clinical manifestations being fever, myalgia, arthralgia, petechial spots/rashes, mucosal bleed and other hemorrhagic manifestations. In the recent past it has been seen that the clinical setting of Dengue fever is changing with frequent neurologic manifestations.
Case Summary: We report here a case of a girl aged 15 years who was brought to our emergency in an altered sensorium with glasgow coma scale of seven. She was having history of fever and left sided focal seizures with secondary generalization later on. A provisional diagnosis of Viral meningoencephalitis was kept. On investigating she was found to be hypocalcemic and CSF analysis favouring a picture of viral encephalitis. IgM Antibodies (CSF) for Herpes simplex, Japanese encephalitis, West nile virus was negative but revealed positive for Dengue virus. Initially, MRI Brain was normal but later on when repeated on Day 5 of admission revealed Cortical thickening with areas of diffusion restriction in bilateral temporal and parietal lobes posteriorly suggestive of cytotoxic edema with meningeal enhancement.

Conclusion: Dengue encephalopathy and Dengue encephalitis are two different entities. Recent studies in the past have shown direct neuronal invasion by the Dengue virus. Due to similar clinical manifestations as of other viruses causing encephalitis, patients with Dengue encephalitis can easily be misdiagnosed at first and hence needs further awareness.

Medical Education

PP076

AFFECTIONS, DISAFFECTIONS AND RELATIONSHIP ABUSE IN ADOLESCENCE

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Introduction: Dating violence is a socially relevant problem in romantic relationships of adolescents and young adults, and has begun to receive particular attention by the scientific community over the past two decades. Not restricted to the sexual dimension, which may involve multiple and varied forms including physical and psychological abuse, requiring different strategies for prevention and intervention Purpose: We intend to identify the factors that influence dating violence among students who attend high school, and analyze the effect of contextual dating variables in the development of strategies of conflict and violence in romantic relationships.
Material and Methods: Cross-sectional, descriptive and correlational study. We applied a protocol of questionnaires consisting of socio-demographic and contextual characterization of dating, Conflict in Adolescent Dating Relationships Inventory (CADRI), (Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley, &Straatman, 2001) and the Attitudes Toward Dating Violence Scale, (Price, 1999) into 243 adolescents attending High School in some public Portuguese Schools. Approval was requested from Portuguese General Directorate for Innovation and Curriculum Development, and authorization was given by the council of schools. Authorization from parents and teenagers was obtained.
Results: Teens aged over 17 years (40.7%), with a predominance of girls (44.1%). Inhabit mainly in rural areas and are mostly Portuguese, with a prevalence of attending the 10th grade.
More than half live with their parents (56.0%). The vast majority was Catholic. Almost all participants are dating or have dated. There are statistically significant differences in all kinds of violence, especially among students who had sexual intercourse. The source of information about sexuality influenced some dimensions of violence and male sexual violence stood out. We found statistically significant differences in all kinds of violence, by gender (higher in males) by religion and those who initiated sexual activity.
The kind of violence was mostly psychological. The behaviors of conflict victimization overlapped to those of perpetration and the boys showed more strategies of conflict, while girls and the older had more no abusive strategies of their own. The conflict behaviors were significant in adolescents who initiated sexual activity earlier and not abusive strategies when sexuality is spoken between lovers or friends
Conclusion: The results point to the need to integrate the topic of dating violence in the education / training of adolescents, using active methods with the effective participation of all stakeholders in the process (teens, parents, teachers and health professionals), because only then we'll be able to develop healthy emotional relationship skills.

PP077

KNOWLEDGE OF GENERAL PRACTITIONERS AND MEDICAL STUDENTS REGARDING THE DIAGNOSIS AND TREATMENT OF ANAPHYLAXIS

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Purpose: In this study, it is aimed to compare the standard of attainments of medical students with general practitioners about the diagnosis and treatment of anaphylaxis.
Materials and Methods: A questionnaire was asked to the senior students at Bolu Abant Ýzzet Baysal Medical Faculty and general practitioners working on 1st step health care in Bolu. The questionnaire was composed of cases with anaphylaxis or anaphylaxis-like situations.
Results: Sixty eight students and 55 general practitioners were included in the study. Thirty eight (55.8%) of the students and 39 (70.9%) of the practitioners were male. The rate of correct diagnosis of anaphylaxis cases was 59.8% among students while this ratio was 35.8% in practitioners and the difference between 2 groups was statistically significant ($p<0.001$). However there was no statistically significant difference between groups in regards to the usage of adrenalin as the first treatment alternative and its correct usage during anaphylaxis (59.8 vs 51.3%, $p=0.21$ and 50.0 vs 48.1%, $p=0.77$, respectively). Twelve of the general practitioners had a professional experience of less than 10 years and 43 of them had the professional practice of more than 10 years. The correct answer ratio to the anaphylaxis questions was statistically significantly higher in less experienced group (44.4 vs 24.8%, $p=0.022$). Nevertheless there was no statistically significant difference between groups in regards to the usage of heparin as the first treatment modality in anaphylaxis and in regards to the correct usage of adrenalin (47.2 vs 32.5%, $p=0.1$ and 45.8 vs 48.8%, $p=0.79$, respectively).
Conclusion: The standard of attainments of both medical students and general practitioners is not sufficient about the diagnosis and treatment of anaphylaxis. We believe that in order to increase these ratios, not only the medical education but also the post-graduate educations should be improved.

PP078

KNOWELEDGE, PERCEPTION AND ATTITUDE OF PEDIATRICS HEALTH CARE PROVIDERS TOWARDS EVIDENCE-BASED PRACTICE IN QATAR

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Background: The belief and motivation of health care providers are crucial in implementing evidence-based practice. A better understanding of EBM cultures among them will improve their skills and healthcare quality. Although evidence-based practice (EBP) has been widely investigated, little research has focused on comparing the use of EBP among different healthcare professions.
Objectives: To explore Pediatric Health Care Provider's knowledge, perception and attitudes towards Evidence-Based Practice and to determine their educational needs.
Methods: Cross-sectional Survey was conducted from July till August 2014 among health care providers at Hamad Medical Corporation main tertiary teaching hospital in Qatar. This included details of demographics, perceptions, knowledge, skills and value of EBM in clinical practice. Questions offered objective answers utilizing the 4 -point Likert scale that can be used to perform statistical analysis.
Results: The survey was completed by 81 (35 %) Physicians, 132 (65 %) Nurses and allied health .About (56 %) of participants practice on pediatrics floor were (44%) on intensive care units and emergency room. Overall (92 %) stated that pediatric department supports the use of EBM. Almost (75 %) were competent in searching for evidence in databases. (73%) of allied health received formal training in critical appraisal compared to (50%) of physicians ($P=0.001$). (78%) of allied health were confident in understanding EBM terminology compared to (66 %) of physicians. Nearly (92 %) of responders stated that EBP will improve clinical care, decision making and reduced the health care cost. On the other hand (77%) of allied health value human view and experience more than evidence from research compared to (31%) of clinicians ($P= 0.000$).
Conclusions: Our Findings demonstrate that a majority of healthcare providers have favorable beliefs and attitudes toward EBP. There were no significant discrepancies between their knowledge and skills in EBP. Despite the enthusiasm, there remains a significant gap between their positive perceptions and implementation in clinical practice. Our study will help to further spread the cultures of EBM and develop new educational programs to facilitate and teach EBM in the department.

PP079

THE CHALANGES OF IMPLEMENTING EVIDENCE-BASEDE MEDICINE AMONG PEDIATRICS HEALTH CARE PROVIDERS IN QATAR

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Background: Health care providers are encouraged to integrate and perform practice-based activities into their daily clinical duties. However, the transfer of evidence into practice is not always optimal, several challenges related to acceptance and application limiting the use of EBM.
Objectives: To determine perceived barriers that pediatrics health care providers experience in the implementation of EBM in daily practice and to explore potential recommendations that can overcome the challenges.
Methods: Cross-sectional Survey was conducted from July till August 2014 among health care providers at Hamad Medical Corporation main tertiary teaching hospital in Qatar. This included details of demographics, perceptions and barriers to use EBM in clinical practice. Questions offered objective answers utilizing the 4 -point Likert scale that can be used to perform statistical analysis.
Result: The respondents 132 (65 %) were Nurses and allied health, 81 (35%) physicians, (73%) of allied health received formal training in critical appraisal compared to (50%) of physicians (P = 0.001). (53%) of clinicians consider time constraint as major barriers compare to (72%) of allied health (P=0.013). On the other hand, (50 %) of allied health group considered lack of institutional resource and facility as most cited barriers compared to (29%) of physicians (P=0.008). unfortunately (72 %) of physicians felt that EBM training in medical school was inadequate in quality compared to (68%) of other professionals group. factors such as Influences from staff members during clinical round and low possibility for implementation of research findings to practice were described in (65%) of responders. to apply EBM in their daily activities participants identified several strategies such as hiring staff with EBM training and offering annual structural workshop in critical appraisal .
Conclusion: There were No significant discrepancies between physicians, nurses and other pediatrics health care professionals in their barriers in implementing evidence-based practice. Our study shed light on the challenges limiting incorporation of EBM. Our findings will be useful to use to design and implement EBM programs.

Neonatology

PP080

NEONATAL AMOEBIASIS MAY NOT BE AS RARE AS WE THOUGHT. A CASE SERIES

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Introduction: Entamoeba Histolytica (EH) is the protozoan parasite responsible for dysentery and amoebiasis. It can cause invasive intestinal and extraintestinal disease.1 It is responsible for up to 100,000 deaths every year worldwide. Over the years, only a handful of cases of neonatal and infantile amoebiasis that has been reported.2,3,4
Purpose: This is to highlight a higher incidence of this infection in this age group than previously thought. Methods: A total of five babies presented to us at the Neonatal Intensive Care Unit (NICU) at Mediclinic City Hospital in Dubai over a period of 24 months. All of them shared a universal symptom of passing stool mixed with fresh blood. Other symptoms were variable according to gestation and the age at presentation. The first baby was a 25 week preterm baby. He became unwell at the age of 2 weeks. He developed bloody stool associated with abdominal distension. He required to be re -ventilated. Other two babies were preterm babies born at 26 and 25 weeks. However, they developed the infection at a

corrected gestation of 38 and 44 weeks respectively. They remained well with no other associated symptoms. The last two babies were term well babies who were reported to pass fresh blood mixed with their stool shortly after birth while on the postnatal ward. Interestingly, with one of these two babies, there was a history of confirmed neonatal amoebiasis with his older sibling. The sibling was born two years ago in a different Middle Eastern country. This was suggestive of ongoing maternal carriage status. Results: A diagnosis of amoebiasis was confirmed by the detection of EH antigens in stool (chromatographic immunoassay) in all babies. All these babies had normal platelets count and coagulation profile. Their parents and household contacts were tested for entamoeba in stool. All babies were successfully treated with metronidazole. Their stool testing after treatment was negative for EH.
Conclusion: Neonatal amoebiasis appears to be commoner than previously reported. It should be suspected in every baby presenting with passing fresh blood in their stool. The diagnosis may be reliably and specifically made using rapid EH antigen detecting test.5 References Available on request. Not provided to keep within the limit for abstract word count.

PP081

PENTOXIFYLLINE ADMINISTRATION IN NEONATAL INFECTIONS, PREMIERE TREATMENT IN ROMANIA CASE REPORT

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Introduction: Pentoxifylline is a synthetic theobromine derivative with hemorreologic, immunomodolating and anti-inflammatory properties, lowers blood viscosity and down-regulates pro-inflammatory cytokines such as TNF-alpha, IL-6, IF8. Therapy with pentoxifylline in new born is still in its experimental stage, there are small numbers of clinical studies regarding its efficacy.
Purpose: This paper features the evolution under a combination of pentoxifylline to the classical treatment of tow entities frequently met in NICU: sepsis and necrotic enterocolitis (NEC). In our center pentoxifylline was administered in premiere in Romania as adjunct to the classical therapy with a favourable evolution of the cases.
Materials and Methods: tow case report (NEC in a premature 31 weeks & sepsis in a term born) with initial bad evolution then a favourable after pentoxifylline administration.
Discussions: Case 1 a preterm neonate with GA 31 weeks, an outcome of in vitro fertilization, born by caesarian section made in emergency due to placenta displacement, Apgar score 1/1' and 1/5', diagnosis being: Premature infant, Severe perinatal asphyxia, RDS by surfactant deficiency, Hypoxic-ischemic encephalopathy, cerebral haemorrhage grade II and NEC, classical treatment was associated with pentoxifylline 5mg/kg/h, 6 h / day for 3 days. Case 2 term neonate, an outcome of neglected delivery, mother came in expulsion with meconial, fetid amniotic fluid, membrane ruptured about 2 days before delivery with coio-amnionitis, Apgar score 0/1', 1/5', 3/10' which needs complex resuscitation maneuvers. Diagnosis: Severe perinatal asphyxia, Neonatal sepsis with staphylococcus aureus, Hypoxic-ischemic encephalopathy. Beside the complex medical support, pentoxifylline was associated with the up mentioned doses.
Conclusions: The favourable evolution of the reported cases aligns to the conclusions of the studies conducted in other NICU centers abroad. Thus pentoxifylline seams to be a promising therapeutic agent in NEC and sepsis in the new born infants.
Key Words: pentoxifylline, NEC, sepsis, preterm neonates.

PP083

SHORT-TERM OUTCOMES RELATED TO WHEEZING, ASTHMA AND ATOPY IN PREMATURE INFANTS

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Introduction: The main risk factors for the development of allergic diseases and atopy has been suggested to operate during pregnancy and in the early childhood. Previous studies related to the effect of prematurity on atopy in early childhood have been inconclusive and limited.
Purpose: We aimed to evaluate bronchial asthma (BA) and atopy by skin prick test in the preterm infants followed at our hospital short-term at of 2-5 years old. We also aimed to analyse the effect of surfactant therapy and palivizumab prohylaxia on wheezing and atopy.
Material and Methods: The study consisted preterm infants (gestational age < 37 weeks) followed at our hospital. The infant's detailed clinical and perinatal data were recorded. The histories of family and infant's allergy, BA and atopy (assessed by allergy skin-prick test), wheezing and requirements of bronchodilatator therapy were controlled by a questionnaire. Infant's serum immunoglobulin E levels were analysed. Results: The study consisted 102 children aged 24-70 months born preterm. The mean birth weight was 1515.8±477.7 g /550-3100), gestational age was 30.7±2.7 weeks (26-36.5), postnatal age was 52.4±13 months (24-70). The ratios of wheezing (hospital admission for attack), BA, and bronchopulmonary dysplasia (BPD) were 39.2%, 14.7%, 12.8% respectively. The ratio of vaginal/cesarean birth was 0.2 (17/85), female/male was 0.93 (49/53). We determined only 11 infants with positive skin test. BA, BPD, skin prick tests and serum Ig E levels of the premature infants were not different in extremely, very and late preterms ($p > 0.05$). We determined higher wheezing attack in the infants with respiratory distress syndrome (RDS) ($p=0.004$), given surfactant ($p=0.007$), and palivizumab prohylaxia ($p=0.000$). There was negative correlation between gestational age and wheezing attack.
Conclusion: This study confirmed that preterm infants had increased risk of wheezing, but not BA and atopy at 2-5 years old. The degree of prematurity inversely affected the ratio of wheezing attacks. Besides, surfactant therapy and palivizumab prohylaxia had significant effect on wheezing. We assumed that the lesser the gestation, the greater ratios of RDS, palivizumab prophylaxia, and wheezing attack should be an expected result.

PP084

A RARE CAUSE OF HYPERTENSION IN A NEWBORN; ADRENAL HEMORRHAGE

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Introduction: Hypertension is rarely seen in the neonatal period. Adrenal hemorrhage is a very rare cause of hypertension in neonatal period, it has been reported only a few cases in the English-language literature. Here, we present a newborn who has a history of birth trauma and adrenal hemorrhage and consequently developed hypertension.
Case Presentation: A male baby was born with normal spontaneous vaginal delivery at 40 weeks of gestation, weighing 4300 g. The labor was difficult and prolonged; baby was macrocosmic and had brachial plexus injury. Physical examination revealed caput succedaneum, flaccid paralysis of the right upper extremity, and a palpable mass in the right middle area of the abdomen. Blood pressure was measured as 147/99 mmHg and his pulse was 140 beats per minute with good femoral pulses. Ultrasonography investigation of the flank mass revealed that, a hemorrhage 28x33x38 mm in size in right adrenal gland. Echocardiography and skeletal radiographs showed no pathological findings. Propranolol was started for treatment of hypertension. At 12th day of the treatment, blood pressure became stable, then drug dose was gradually reduced. Intermittent abdominal ultrasonography showed a progressive

decrease in the size of adrenal hemorrhage. When the patient was 27 days old, he was discharged and in the 1-year follow-up there was no recurrence of hypertension.
Conclusions: The most common cause of neonatal hypertension is renal artery thromboembolism, which develops secondary to umbilical artery catheterization. In our patient; renal function tests, urine output, and glomerular filtration rate were normal. In addition, except right adrenal hemorrhage, no abnormality was observed in the ultrasonography of the kidneys with Doppler flow study of the aorta and renal arteries. Other common causes of neonatal hypertension; hypervolemia due to oliguric renal damage, structural renal diseases such as polycystic kidney disease, aortic coarctation, obstructive uropathy, medications such as corticosteroids, endocrine disorders and bronchopulmonary dysplasia (BPD) may be considered. It was thought that the etiology of hypertension in our patient was due to bleeding of the adrenal gland. Transient hypertension developed as a result of acute renal obstruction, which was due to either direct pressure on the proximal ureter by an adrenal hemorrhage or secondary to displacement of the kidney by the mass resulting in curling of the proximal ureter. In conclusion; as neonatal hypertension may progress asymptomatically, it should be kept in mind in infants of diabetic mothers, macrosomic infants, and difficult births especially in neonates who develop adrenal hemorrhage.

Neurology / Neurodevelopmental Paediatrics

PP085

CLINICAL, BIOCHEMICAL, AND MOLECULAR STUDIES IN PYRIDOXINE-DEPENDENT EPILEPSY: REPORT OF 12 CASES

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Introduction: Pyridoxine-dependent epilepsy (PDE; OMIM 266100) is an autosomal recessive disorder that causes intractable seizures, especially in neonates and infants. Patients are typically resistant to antiepileptic drugs but respond dramatically to pyridoxine. In the majority of patients with PDE, the disorder is caused by the deficient activity of the enzyme α-aminoadipic semialdehyde dehydrogenase (antiquitin protein), which is encoded by the ALDH7A1 gene.
Purpose: The aim of this work was the clinical, biochemical, and genetic analysis of 12 unrelated patients, from Saudi Arabia, in an attempt to provide further valuable data regarding the wide clinical, biochemical, and genetic spectrum of the disease.
Methods: The diagnosis of PDE was confirmed based on the presence of pipecolic acid and α-aminoadipic semialdehyde (α-AASA) in urine and by sequencing analysis of ALDH7A1 gene.
Results: Most of the patients had seizures in the neonatal period, 2 patients developed late-onset seizures. Seizures were intractable or partially controlled by antiepileptic drugs, but controlled after adding pyridoxin. Seizures were most of the time associated with other neurologic or systemic manifestations. All patients had elevated levels of pipecolic acid and α-AASA in urine. Genetic study showed mutations/deletions in the ALDH7A1 gene. Outcome was favorable regarding seizures control, but 9 patients were left with mild to moderate developmental delay.
Conclusion: The present results broaden our knowledge of PDE, provide information regarding the clinical and genetic background of PDE in Saudi Arabia.

PP086

MOTOR IMPAIRMENT TESTED BY MOVEMENT ABC TEST IN CHILDREN BORN WITH IUGR - PRELIMINARY RESULTS

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Introduction: Intrauterine growth restriction (IUGR) is considered as a risk factor for neurodevelopmental disorders and unfavorable long-term outcome. One of the most often used test to determine motor impairment is Movement ABC test (M-ABC).
Purpose: To determine the presence of motor impairment in children born with IUGR and to relate it to perinatal parameters.
Materials and method: Children born with IUGR were tested by M-ABC. The results were related to brain ultrasound done after birth and the result of Amiel-Tison Neurological Assessment Test done at term (ATNAT). Results: Results of eight children born with late and mild IUGR are presented. Half of the children had normal brain ultrasound, one child had peri-intraventricular hemorrhage (PIVH) grade I, while three had PIVH grade II. One child had optimal ATNAT score; half of them had minor disturbances, and other three had moderate disturbances indicating that the all but one of the children showed functional neurological disturbances after the birth. Age of the children when tested with M-ABC ranged from 3 to 5 years. Half of the children had suboptimal results on the test (three children had scored below 10th percentile in one of the subtests (although only one had total test result under 10th percentile), and one child couldn't follow the test). Half of the children who had suboptimal performance on the M-ABC had normal brain ultrasound. Three out of four children had minor ATNAT and the fourth had moderate ATNAT score. Two out of four children who had optimal M-ABC results had moderate ATNAT score and had undergone developmental therapy. Conclusion: Half of the tested children showing suboptimal M-ABC test results indicate the need for longer follow up of the children born with IUGR. Since half of them had normal brain ultrasound at birth, and majority only minor ATNAT score, the group of the children to be followed shouldn't be limited on those with brain ultrasound lesions or moderate ATNAT score.

PP087

NEUTROPHIL-TO-LYMPHOCYTE RATIO IS A PRACTICAL PREDICTOR FOR DIFFERANTIATION OF FEBRILE SEIZURE TYPES

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Introduction: The objective of this study is to estimate the usefulness of the haematogical parameters especially neutrophil-to-lymphocyte ratio (NLR) in differantiation of febrile seizure (FS) types.
Methods: A retrospective review was conducted on patients from 6 months to 6 years presenting with first febrile seizure admitted to a tertiary care hospital. Epidemiological and laboratory variables were collected.
Results: Ninety seven patients (97) with febrile seizure admitted to our clinic between 2011 and 2012 were included in the retrospective chart review. There was a significant difference in results of NLR and RDW among simple febrile seizure group and complex febrile seizure group. The mean neutrophil/ lymphocytes ratio in the SFS and CFS groups was 2.18 ± 1.9 and 3.8 ± 4.2, respectively and the difference was significant (p= 0.024). The mean serum red blood cell distribution width in the SFS and CFS groups was 16.1 ± 1.1 and 16.6 ± 0.8, respectively and the difference was significant (p= 0.019). There was no significant difference in other complete blood count parameters, serum reactive protein, sedimantation rate and EEg results NLR values in complex febrile seizure (CFS) patients were higher than simple febrile

seizure (SFS) patients. This increment in NLR is statistically significant. The AUC of NLR was 0.623 in complex febrile seizure patients. The optimal cut-offs of NLR were 1.98 and validated in the testing set. For febrile seizure evaluation, the sensitivity and specificity were 0.667 and 0.603 in CFS patients under the suggested cut-offs.
Conclusion: NLR was a simple, effective and practical predictor for differantiation of FS types. It will have potential values in public health practice for management of FS patients.

PP088

X-LINKED CHARCOT MARIE TOOTH DISEASE : REPORT OF A FAMILY
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Charcot marie tooth disease (CMT) comprises inherited neuropathies, mostly inherited autosomaly (CMT 1 and CMT2). Recent data suggests that approximately 10-16% of all cases of CMT are inherited in an x-linked (recessive or dominant) manner. These patients designated as CMT X form a distinct group with point mutation in the gene coding for connexion 32 (CX 32). Herein we highlight the clinical and electrophysiological profiles of a family including father (40 yrs), son (3 yrs) and daughter (10yrs) suffering from X-linked CMT. All had neurological signs and symptoms including progressive weakness, symmetric muscle atrophy, difficulty in walking, muscle twitching and sensory involvement include loss of vibration followed by decreased pain and temperature sensation. Chronic form of motor neuropathy in form of foot deformity (pes cavus) and high-arched feet also seen. Electrophysiological studies in daughter revealed reduced motor and sensory nerve conduction velocities with reduced compound muscle action potential (CMAP) suggestive of predominantly demyelinating polyneuropathy with axonopathy ; in son revealed similar findings but of less severe degree and in father revealed severe form of reduced motor and sensory nerve conduction velocities with prolonged distal latencies and reduced CMAP. Pedigree analysis suggested an X-linked dominance. Sural nerve biopsy revealed characteristic onion bulb appearance in daughter and father. This appears to be a rare family with X-linked CMT. Symptomatic treatment with orthotic devices given. Physiotherapy adviced and genetic councelling done.
Key words: CMT, X- LINKED, PES CAVUS, SURAL NERVE

PP089

PREDICTORS OF POOR SEIZURE CONTROL IN CHILDREN MANAGED AT A TERTIARY CARE HOSPITAL OF EASTERN NEPAL
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Introduction: Various factors have been claimed to predict outcome of afebrile seizure in children. Purpose: To find out the predictors of poor seizure control in children at a resource limited setting.
Materials and Methods: A prospective study was done from July 2009 to January 2012 at a university hospital of eastern Nepal. Children with afebrile seizures were studied. Data was analyzed using SPSS 16.0 software. Bivariate analysis was done and significant ($p < 0.05$) predictors were further analyzed with binary logistic model to find out the true predictors. Positive precitive value (PPV), negative predictive value (NPV), odds ratio (OR), sensitivity and specificity of the predictors were calculated.
Results: In analyzed 256 cases, male: female ratio was 3:2, median age at first seizure was 36 months and 71.5% children showed good seizure control with single anticonvulsant drug. Median duration of follow up was 27 months. Seizure was poorly controlled despite treatment in 20% cases. Binary logistic model showed that three factors predicted poor seizure control. They were frequent (¡Ý1 per month) seizures at onset (p 0.022, OR 12.76, 95% CI 1.44-112.73, PPV 25%, NPV 98%); remote symptomatic etiology (p 0.043, OR 3.56, 95% CI 1.04-12.17, PPV 36%, NPV 92%); and need of more than one anticonvulsant drug (polytherapy) (p 0.000, OR 12.83, 95% CI 5.50-29.91, PPV 56%, NPV 94%). Family history of seizure, age of onset of seizure, CT scan abnormality, EEG abnormality, focal seizure

semiology, prior febrile convulsion, history of status epilepticus and abnormal neurological examination did not predict outcome. The strongest predictor was need of polytherapy. When all three factors were present, PPV, NPV, sensitivity and specificity of prediction were 70%, 90%, 58% and 94% respectively.
Conclusions: Frequent seizures at onset, remote symptomatic seizure and need of polytherapy were associated with poor seizure control in children with afebrile seizure.

Other

PP090

THE LINK BETWEEN INFANT MORTALITY RATES AND POVERTY IN AFRICA
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Introduction: Countries across the globe seek to have as low Infant Mortality Rates (IMRs) as possible but what obtains in reality are variations in the rates captured by different countries owing to respective income status. High IMRs are synonymous with poorer countries of the world while low IMRs are synonymous with the richer ones because in poorer countries, the basic necessities for infant survival such as increased nutritional measures, and quick access to health care facilities, better sanitation, and clean water are either unavailable or unevenly distributed where available. Previous findings have shown that the continent of Africa has high IMRs. The average rate of the first ten African countries with high IMRs is 86.9 infant deaths for every 1,000 live births whereas the average rate of the first ten African countries with low IMRs is 18.5 infant deaths for every 1,000 live births.
Purpose: This study is committed to investigating the link between IMRs and poverty in Africa Materials and Methods This study analyzes the link between IMRs and poverty in Africa by comparing the IMRs and the incidence of poverty in the first ten African countries with high IMRs and the first ten African countries with low IMRs. The study relies on IMRs and poverty figures reported by the World Bank and the Central Intelligence Agency of the United States to work out the link between IMRs and poverty in Africa.
Results: From the comparison of IMRs and the incidence of poverty in these countries, it is revealed that 70% of the first ten African countries with high IMRs have poverty incidence that is above 50% whereas 10% of first ten African countries with low IMRs have poverty incidence that is above 50%.
Conclusion: The results indicate that there is a positive link between IMRs and poverty in the continent of Africa. The paper suggests some measures that can be taken by African countries to alleviate poverty and to reduce the high rate of infant mortality characteristic of the continent.

PP092

FACTORS ASSOCIATED WITH ADOLESCENT STUDENTS USE OF SCHOOL-BASED SALAD BARS
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Introduction: Childhood obesity continues to be a major public health problem in the United States. Increasing consumption of fruits and vegetables (F/V) is one strategy for decreasing high density-high fat foods, and thereby improving weight status. Many New Orleans, Louisiana, USA, public schools were provided with salad bars (SB) to augment school lunch with increased access to F/V. Purpose: The purpose of this study was to identify factors associated with student use of SBs.
Materials and Methods: Surveys examining SB use, demographics, food preference, nutrition knowledge, and social support were administered to students in 7th-12th grades in New Orleans (n=702). Generalized estimating equations, which incorporate clustering at the school level, were used to determine associations between independent variables and SB use.
Results: Sixty percent of participants were SB users. Non-African American students were more likely to be SB users than African American students (OR=1.97, CI: 1.17-3.32), and students who had higher levels of social support were also more likely to use the SB than those who had low social support (p=0.015).

A significant interaction of grade and gender with nutrition knowledge and food preference was observed.
Conclusions: Individual and interpersonal factors were related to SB usage, which data can provide guidance in the development of school-based interventions to increase SB use and F/V consumption.

PP093

THE ESSENTIALS OF PERI-DISCHARGE PATIENT EDUCATION

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Introduction: Adverse events related to peri-discharge management can result in serious harm and inconvenience to patients. This can be reduced by enhancing the partnership between the medical team and patients, through patient education.
Purpose: Through the introduction of a new streamlined and comprehensive discharge checklist, we aimed to improve patient education with regards to peri-discharge issues, thereby reducing the occurrence of serious reportable events related to peri-discharge management.
Materials and Methods: The new discharge checklist was incorporated onto the cover page of the clerking notes in August 2013 (with patient's diagnoses, discharge medications and follow-up plans).
It comprises patient education on discharge medications, external devices, wound care and when to return to hospital. Data of 50 patients per month was collected in the July 2013 when the old discharge checklist (separate from the clerking notes and often missing) was in use, and August - October 2013 with the new checklist. We also audited data on reportable hospital occurrences from 2012 and 2013.
Results

	Old discharge checklist	New discharge checklist	New discharge checklist	New discharge checklist
	July 2013	August 2013	September 2013	October 2013
n	50	50	50	50
Compliance rate, n (%)	41 (82)	41 (82)	47 (94)	45 (90)
Time taken for completion (days)	1.10	1.61	0.702	0.533
% completion within same day	30	30	56	58
Re-attendance	0	0	2	2

Apart from the first month when residents were adapting to the new checklist, the implementation of the new checklist has improved compliance and also the time taken for completion of the checklist. Of note, there was a higher rate of completed checklists within the day of discharge. This allows for timely patient education prior to discharge. Since the implementation of the discharge checklist, we have had zero serious reportable events related to peri-discharge events (previously 1 per year in 2012 and 2013 prior to implementation of checklist). In fact, good patient education has helped parents pick up on wrong doses of discharge medications. There has been an increase in re-attendance to the children's emergency after discharge for a related problem. This could be at least in part attributed to better patient education and empowerment of parents to know when to bring their child back for medical attention.
Conclusions: Our discharge checklist is successful in improving patient education and has empowered patients to seek medical attention early, thus preventing adverse events from occurring. The streamlined version has helped improve compliance and time taken to complete the form.

PP095

DEVELOPING A PEDIATRIC SPECIALTY FOCUSED MODULE FOR EMR

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Introduction: Documenting in EMRs is a challenge, especially for data-heavy specialties. While fully prepackaged adult EMR modules are widely available, the platforms for pediatrics are less robust, especially in specialty areas. This abstract describes the process of creating a custom pediatric surgical specialty build.
Methods: We formed a focus group of the physician consultant, Project manager, EMR Analyst, and a design strategist. The group conducted sessions to map data collection to steps in workflow and designed an interactive early draft to create a data capture form that will drive input into a dynamic charting functionality. We used evidence-based medicine to create personalized order sets. We evaluated touch screen data input methods. Lastly, we worked with the device integration team and our vendors to facilitate the incorporation of diagnostic imaging using a vendor-neutral archive.
Results: We are working with our EMR vendor to create a fully functional pediatric ophthalmology module including templates that capture complex measurements, touch-screen input to facilitate real-time data entry with minimal loss of patient attention during the exam, and storage and retrieval of diagnostic images.
Discussion: Pediatric specialists can collaborate with their health informatics specialists to customize modules to suit their practice. Digital image integration into the EMR is a key upcoming feature.
Conclusion: We are customizing our EMR to meet the needs of the pediatric surgical specialist.

PP096

QUALITATIVE ASSESSMENT OF THE EDIBLE SCHOOLYARD PROGRAM IN NEW ORLEANS, LOUISIANA, USA BY PARENTS, TEACHERS AND STUDENTS

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Introduction: The prevalence of childhood obesity in the United States exceeded one-third of that population in 2012, in part as a result of unhealthy dietary behaviors. School environments have the potential to influence dietary behaviors because children spend most of their time in school and over one-third of their daily energy intake is consumed within the school environment. One school-based approach is to engage students in kitchen and garden classes to improve attitudes and behaviors toward healthy eating. The Edible Schoolyard program in New Orleans (ESYNOLA) seeks to do this by integrating hands-on gardening and seasonal cooking into the school curriculum, culture, and cafeteria programs.
Purpose: The purpose of this study is to examine student, parent, and teacher perceptions of ESYNOLA to identify program attributes that are most highly valued among these key stakeholders.
Materials and Methods: Six semi-structured focus groups were used to elicit perceptions about ESYNOLA from student, parent, and teacher groups at two primary schools with high levels of garden and kitchen programming.
Results: Results from student (n=27), parent (n=17) and teacher (n=17) focus groups revealed that study participants highly valued experiential learning and exposure to new foods, increased student social connection and respect, modeling of healthy behaviors in the classroom, and skills transfer from classroom to home. Integrated learning was also an important program aspect among teachers.
Conclusions: These qualitative findings support the values of school-based programs like ESYNOLA by key stakeholders and contribute to social engagement healthy behaviors among primary school students. Additional more rigorous evaluation methods are needed to determine ESY effectiveness in increasing fresh produce consumption among school-age youth.

PP097

THE ENDOLARYNGOSCOPY IMPORTANCE IN EARLY CHILDHOOD.

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Introduction: The main laryngeal diseases symptoms (dysphonia/aphonia and breathlessness) are connected with two main laryngeal functions: breathing and phonation. In early childhood we meet with another important symptoms- stridor and cough which are not specific and can be part of a variety of illnesses.
Purpose: To analyze pathology structure in babies and toddlers with cough, stridor and dysphonia.
Materials and methods: The results of endoscopic examination (with flexible and rigid optic systems) were estimated in 135 patients in the age from 6 day to 3 year old. Results. Indications for endoscopic laryngeal examination were stridor (37,8%), dysphonia (37,8%) and cough (9,6%). In 24 (17,8%) cases laryngeal pathology was found unexpectedly. Endoscopic examination revealed laryngeal trauma in 1 case (0,7%), acute laryngitis in 10 (7%), hemangioma of larynx in 10 (7%), vocal nodules in 18 (12%), laryngeal paresis in 11 (7,3%), laryngomalacia in 30 (20%), aspiration syndrome in 9 (6%), cicatricial stenosis of the larynx in 4 (2,6%), papillomatosis in 2 (1,3%) and cysts (pharyngeal in 2 (1,3%) and root of tongue in 1 (0,65%)). Combined pathology of the larynx was observed in 39 (28,9%) children.
Conclusions: The complains are not specific and can be seen with different pathology. Only an endoscopic examination can help in diagnosing and identify the right way of treatment (conservative (medicine) or surgical).

PP098

APPLICATION OF GOLIMUMAB IN JUVENILE ARTHRITIS PATIENT

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We would like to discuss a clinical case of a child with severe JIA treated with Golimumab.
Patient P., 13 years old. The disease occurred 3 years ago. The disease manifested with arthritis of metatarsophalangeal joint in his left little toe. First 3 months he was treated with NSAIDs. The treatment failure required sulfasalazine addition. Sulfasalazine combined with NSAIDs was given to the boy for a month. Then since the patient improved and seemingly recovered his parents discontinued his treatment.
Six months after that the boy started to complain on pain in his right 4th toe. Then a month later he developed pains in his hip joint and 2 months later - in his left knee. Six months after exacerbation onset his parents decided to seek medical advice. Due to multi-joint involvement and high humoral inflammation activity the NSAIDs plus sulfasalazine regimen was re-launched. Within next 2 months the patient developed arthritis in his left elbow and the left thumb metatarsophalangeal joint. The regimen was added with subcutaneous methotrexate 25 mg a week. Pain syndrome improved considerably with good arthritis control but six months later patient developed arthritis in his left thumb metatarsophalangeal joint, right 4th toe metatarsophalangeal joint and left knee. The child well-being was considerably worsened due to significant pain syndrome. The boy could hardly walk and even could not go to school. On examination we found sharp tenderness in knee joints at enthesis sites. Foot X-rays showed destruction in his little toe metatarsal bone head and in a proximal part of the proximal phalanx at the left little toe and less prominent destruction signs in a metatarsophalangeal joint of the right 4th toe as well as increased bone transparency. Conventional immunosuppression failure and destructive arthritis made us to decide on use of biologic therapy with TNF-alpha inhibitors. Since the patient's parents said that frequent out-patient injections would be impossible, the Golimumab was found to be our treatment of choice. Golimumab 50 mg was prescribed as subcutaneous injections once a month. During 6 months of treatment we noticed considerable positive changes -- the boy went to school with no active arthritis. Lab data showed no inflammatory activity and X-rays indicated positive changes in bone destruction lesions.

Conclusion: We managed to show that Golimumab is an effective agent to treat severe juvenile arthritis with bone destruction lesions refractory to conventional immune suppression.

PP099

USING BABY AND TATTY BUMPKIN SESSIONS IN PRIVATE CLASSES, NURSERIES AND CHILDREN CENTRES TO ENCOURAGE 'WELLBEING', FAMILY BONDS AND THE EARLY LEARNING PROCESS.

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Introduction: "Regular physical activity during the early years provides immediate and long term benefits for physical and psychological wellbeing" (Start Active and Stay Active Report. Dept. of Health 2011).Tatty Bumpkin (for children aged 2 -7 years) and Baby Bumpkin (for babies aged 6 weeks - 2 years) Yoga activity sessions aim to encourage babies, children and their families to become more active. The sessions run in a variety of settings i.e. in private venues, nurseries, children centres and schools.
They aim to ensure everyone can take part and enjoy themselves and families are inspired to do the activities at home. The Baby Bumpkin sessions encourage parents to; talk to, play with, and bond with their baby. The Tatty Bumpkin sessions aim to improve children's physical and communication skills and nurture their self-esteem. The sessions also aim to encourage listening and imaginative thought.
Purpose: We wanted to evaluate whether Tatty/Baby Bumpkin sessions achieved their aims. We assessed if the sessions were enjoyable, easy to follow and if they provided parents with ideas on how to play/relax with their baby/child at home. For Tatty Bumpkin sessions we wished see if they improved children's concentration, communication and imagination as well as their physical skills.
Method: Through our Tatty Bumpkin Franchisee/Teacher network we surveyed 143 parents and practitioners who attended Tatty/Baby Bumpkin sessions with their children/babies. The survey was completed via a dedicated questionnaire or ones developed by the settings.
Results: 100% of parents/practitioners felt the babies/children enjoyed the Tatty/Baby Bumpkin sessions and found them easy to follow. For the Baby Bumpkin sessions: 98% of parents reported that the sessions had given them play and relaxation ideas for home and over 90% of parents/practitioners felt the sessions had helped the babies' early physical and communication skills. For the Tatty Bumpkin sessions: 100% of parents/practitioners felt the sessions had improved the children's listening or concentration skills, over 90% felt they progressed the children's physical and communication skills and developed their imagination, 91% of parents stated the sessions had given them play ideas for home.
Conclusion: Baby and Tatty Bumpkin sessions are enjoyable and accessible. The sessions give parents ideas for play activities at home. Baby and Tatty Bumpkin sessions not only help a baby's and young child's physical skills but also support their early communication skills. Tatty Bumpkin sessions support learning skills such as concentration, listening and imaginative thought.

Pulmonology

PP100

FACTORS INFLUENCING THE SEVERITY OF ASTHMA EXACERBATION

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Introduction: Asthma is the most common chronic disease of the childhood which involves important morbidity and mortality through severe exacerbations. In the large proportion of asthma cases in children the diagnosis is established following a severe asthma exacerbation that requires admission into the hospital. Following the implementation of the principles of asthma management, is often encountered the necessity for an early recognition of those patients with a higher risk for severe exacerbation.
Purpose: The purpose of this study is to assess the correlation between the severity of asthma exacerbation and different factors presumed to have an influence on asthma exacerbation severity.
Material and Methods: A prospective study including 134 children aged 5-18 years diagnosed with asthma, who have been evaluated for asthma exacerbation in „Dr.Victor Gomoiu" Clinical Children's Hospital between March 2012-March 2014, was initiated. For each patient a full physical exam, a PEF (peak expiratory flow) value measurement and a SaO2 (saturation of peripheral oxygen) value assessments were performed. Using all of above the severity of asthma exacerbation for each patient was established, noting if the severity of asthma exacerbation was mild, moderate or severe. Subsequently all included patients received appropriate treatment for asthma exacerbation: the patients with severe exacerbation were admitted in the hospital; the patients with mild and moderate exacerbation received treatment in the ambulatory care unit and were closely monitored; those who failed to improve were also admitted in the hospital. For each patient we have assessed the association with the following risk factors known to have an influence on severity of asthma exacerbations: age, sex, birth weight, gestational age at birth, urban or rural area living, smoking exposure, associated comorbidities, type of trigger involved, use of salbutamol before medical checking, unorganized family, overweighting, asthma form, asthma control status, compliance, atopy and history of another severe exacerbation. After that a statistically analyze using Chi Square Test Function was performed in order to establish which of these risk factors are correlated with the severity of asthma exacerbations.
Results: The statistical analyze provided statistically significant correlations ($p<0,05$) between the severity of asthma exacerbation and unorganized family ($p=0,015$), uncontrolled asthma ($p=0,042$), asthma severity ($p=0,039$), lack of compliance ($p=0,001$) and history of another severe exacerbation ($p=0,026$).
Conclusion: Unorganized family, uncontrolled asthma, asthma severity, lack of compliance and history of another severe exacerbation influence the severity of asthma exacerbations in children.

PP101

TIMING OF SURGERY IN NEWBORNS WITH CONGENITAL DIAPHRAGMATIC HERNIA

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Background: CDH was the most common cause of death in newborn group of surgical patients in our hospital. Statistics significantly changed after introducing the delayed approach of surgical correction. Objectives: Study objectives are to assess the effectiveness of delayed surgical correction in patients with CDH

Methods: We compared Two groups of patients with CDH, who underwent the surgery. In the first group, since 1978, great majority of patients were operated in first 24-48 hours of life. In second group, since 2007, time of surgical intervention was approximately at t 98 hours after birth. In 98 %, in both groups, diaphragmatic defect was primarily closed. Only in 2 % of cases patch or silo was used. None extra corporal membrane oxygenation or preoperative NO was never used.
Results: From 1978 to 2007 years, 45 patients with different level of pulmonary hypertension underwent surgical correction of CDH in first 24-48 Hours of life, mortality was 35 % and recurrence was 8%. In second group, from 2007 to 2014 years, patient with different grade of pulmonary hypertension 38 patients underwent the intervention. Mortality decreased to 18%, recurrence was only 2 %.
Conclusion: Delayed surgical correction - 96 hours after birth, after initial management and pulmonary support, improves the outcome in patients with CDH, compared with surgical intervention in first 24-48 hours of life.

PP102

CHARACTERISTICS OF PATIENTS WITH CYSTIC FIBROSIS: A REVIEW OF 18 CASES

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Introduction: Cystic fibrosis (CF) is an autosomal recessive disease caused by mutations in the CF transmembrane conductance regulator (CFTR) gene that results in abnormal viscous mucoid secretions in multiple organs and whose main clinical features are pancreatic insufficiency and chronic endobronchial infection.
Purpose: The present study aims to review demographic data, clinical manifestations and laboratory findings of Tunisian children diagnosed with CF who referred to Children's Hospital of Tunis, during a thirteen-year period.
Materials and Methods: In a retrospective study from 2000-2013, all hospitalized patients with documented CF were reviewed. Diagnosis was based on clinical findings and sweat chloride levels above 60 mEq/L. **Results:** A total of 18 patients [females: 11, males: 7] were enrolled. The onset of symptoms was before the first month of life in 3 cases, between 1-6 months of age in 8 cases, and between 6-12 months of age in 7 cases. Consanguinity of parents was present in 10 cases. Respiratory (18/18) and gastrointestinal (16/18.) symptoms, in addition to growth retardation were the most common presentations. Fifteen patients weighted below the fifth percentile. Of the chest radiographs performed, the most frequent finding was bronchectasis. A total of 12 patients were infected by Pseudomonas Aeruginosa after an average of seven years of disease course (11 months-13 years). Five patients died, mostly from respiratory failure. The diagnostic procedures included clinical features, sweat test which values ranged from 60 meq/l to 167meq/l. Fifteen of them had DNA screened and The most common mutations in the cystic fibrosis transmembrane conductance regulator gene found were Delta F508 (12 patients), then E1104X (2 patients), then 711+1G 5 (1 patient).
Conclusion: CF is not a rare disease in Tunisia. We suggest early diagnosis and appropriate maintenance therapy for improving morbidity and mortality amongst CF patients

PP103

A CLINICALCASE OF CONGENITAL LOBE EMPHYSEMA

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This article presents the clinical case of congenital lobes emphysema (CLE) - malformation, characterized by excessive level of the air in the lung's lobe. The frequency of CLE is about 14% of all congenital abnormalities of the lungs. The maldevelopment of lobar bronchus is the main reason of CLE.

Mostly - it may be the cartilage defect, rarely -- defects of muscle membrane or mucous membrane fold, stenosis, abnormally positioned vessel compression, tumor et alias. However, the disease ethiology is unknown in 55% of cases.
Patient A., 1,5 month old, respiratory disorders occurred on the fourth day after the birth, symptoms of respiratory failure -on the tenth day, progressive deterioration due to the respiratory failure. X-ray revealed the right shift of the mediastinum. Tomography data: Congenital lung disorder. Left upper lobe bronchi stenosis. Left lung upper lobe congenital emphysema.
Surgery: Left-sided thoracotomy. Left lung upper lobe resection. Pathomorphology results: multiple cavities in subpleural area - areas of visceral pleura delamination from the lung tissue, the m ost of the alveoli have been considerably expanded. Alveolii septums were thin and stretched, partly broken, microcysta were formed in the broken area. Visible cavities were covered with prismatic epithelium on side and alveolar epithelium on the other. The bronchial epithelium formed the folds and muscular layer was missing.
This case is of special interest, because considered to be the rare pathology. CLE in the patient had developed through a combination of the two bronchi anomalies : folding mucosa and hypoplastic muscle layer, that provided the severity of the disease.

PP104

CORRELATION BETWEEN THE SEVERITY OF ASTHMA EXACERBATION AND FENO VALUE

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Introduction: Asthma is the most common chronic disease of the childhood that involves important morbidity and mortality through severe exacerbations. Asthma is a chronic inflammatory disorder of the respiratory tract. In the large majority of asthma cases in children the ground of bronchial inflammation consists mostly in eosinophils and atopy is associated. Atopy is known to be related to the most severe asthma forms. FeNO (fractional exhaled nitric oxide) is noninvasive biomarker of eosinophilic bronchial inflammation.
Purpose: The purpose of this study is to assess the correlation between the severity of asthma exacerbation and FeNO value.
Method: A prospective study including 86 children aged 5-18 years diagnosed with asthma, who have been consulted for asthma exacerbation in „Dr.Victor Gomoiu" Clinical Children's Hospital between May 2012-August 2014, was initiated. For each patient a full physical exam, PEF (peak expiratory flow) value measurement and SaO2 (saturation of peripheral oxygen) value assessment were performed. Using all of above the severity of asthma exacerbation for each patient was established, noting if the severity of asthma exacerbation was mild, moderate or severe. In the same time for each patient FeNO (fractional exhaled nitric oxide) was measured noting if the value was normal (≤25 ppb) or increased (>25 ppb). Subsequently all included patients received appropriate treatment for asthma exacerbation: the patients with severe exacerbation were admitted in the hospital; the patients with mild and moderate exacerbation received treatment in the ambulatory care unit and were closely monitored; those who failed to improve were also admitted in the hospital. After that a statistically analyze using Chi Square Test Function was performed in order to establish if the severity of asthma exacerbation is correlated with FeNO value, in the sense of that a mild asthma exacerbation should be associated with a normal FeNO value and a severe asthma exacerbation should be associated with an increased FeNO value.
Results: Among all 86 included patients 40 patients had a mild asthma exacerbation (46,5%), 41 patients had a moderate asthma exacerbation (47,7%) and 5 patients had a severe asthma exacerbation (5,8%). 52 patients from all included (60,5%) had a normal FeNO value and the other 34 patients (39,5%) had an increased FeNO value. By assessing the statistical correlation between the severity of asthma exacerbation and the FeNO value a value of p=0,444 was obtained (not statistically significant).
Conclusion: The severity of asthma exacerbation is not correlated with the FeNO value.

Chronic Diseases

PP105

SOCIAL, PSYCHOLOGICAL AND FINANCIAL BURDEN ON PARENTS OF CHILDREN WITH CHRONIC ILLNESS.

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Introduction: Chronic illness is defined as an illness that interferes with an individual's daily functioning for at least three months of a year or that will require hospitalization for more than one month of a year. The impact of chronic illnesses upon children and their families can range from minimal disruptions to severe distress and functional limitations. The family is affected socially, financially, emotionally, psychologically.
Purpose: We studied the social, psychological and financial burden on parents of children with chronic illness and also compared these between the illnesses.
Materials & Methods: Participants were recruited from the ambulatory and hospital areas in the department of paediatrics following informed consent. The socio demographic details about the parent, family and child were collected using a semi structured questionnaire,adapted from Family Burden Interview schedule (FBIS). The psychological well being of the parents was assessed using Patient Health Questionnaire (PHQ-9) and generalized anxiety disorder (GAD-7).
Inclusion criteria: Parent who is also the primary care taker of child of age group 18 years or below with chronic illness.
Exclusion Criteria: Ability to give reliable data is compromised in the parent (psychosis, mental retardation etc.).
Statistical Analysis: Descriptive analysis and ANOVA was done for comparing mean scores of responses to analyse the financial, psychological and social burden across different diagnosis.
Results: We interviewed 128 primary caretakers of chronically ill children (57 females, 71 males). While 12% of primary care givers didn't report of any depressive symptoms, 24% reported mild depressive symptoms, and 64 % reported moderate to severe depressive symptoms. We had 11% primary care givers reporting no anxiety symptoms,36%reported mild anxiety symptoms, and 53% reported moderate to severe anxiety symptoms.No difference in depressive or anxiety symptoms or of financial or social burden was seen in primary care givers of patients of either gender. There was significantly higher financial burden and disruption in leisure and family interaction time in cerebral palsy patient's families as compared to thalassemia.
Consclusions: Majority of primary care givers of all chronically diseased patients reported moderate depressive symptoms and mild to moderate anxiety symptoms. Cerebral palsy causes more social and financial burden on family as compared to thalassemia.Burden on families of remaining diseases is comparable.There were no gender related differences for any of the parameters studied. Further research needs to tease out the predictors of these symptoms in the caregivers.

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MEETINGS ON THE OCCASION ABSTRACTS

SSP1

Phytomedicine for lower respiratory tract infection - is there any evidence
Prof. Dr. Stefan Zielen
Children's Hospital, Allergy, Pneumology and Cystic fibrosis
Goethe-University, Frankfurt / Main, Germany

Common cold is the most frequent acute illness with an average incidence of 5-7 episodes in preschool children and 2-3 episodes in adults per year. Although a self-limiting disease it causes substantial economic burden. It is predominantly caused by viruses and no clinically proven antiviral treatment is available. Although only a small subset of patients suffers from complications due to bacterial superinfection antibiotics remain the mainstay for treatment causing more harm than benefit. Phytomedicines are increasingly discussed as alternatives to antibiotics.

Bronchipret® a combination of thyme and ivy used as treatment for acute bronchitis.

In preclinical studies with a variety of in vitro and in vivo studies a broad spectrum of pharmacologic effects has been identified: there convincing data available showing anti-inflammatory, antitussive, bronchodilatory, antiviral and antibacterial properties.

Clinical evidence for the efficacy of Bronchipret® exists. A 10-day treatment with Bronchipret® Syrup in 1,234 children (2-17 years) for acute bronchitis with productive cough showed good or very good tolerability in 96.5% of the patients. Efficacy findings of the study matched with those of a randomized placebo-controlled trial with Bronchipret® Syrup in adult patients. In the two studies the BSS (Bronchitis severity score) showed a comparable regression over treatment period: in adult patients BSS regression was significantly faster under Bronchipret® than under placebo (Day 0: both groups 8.3; Day 10: 3.3 under placebo vs 1.6 under Bronchipret®). For children regression of symptoms was even more pronounced (Day 0: 8.8; Day 10: 1.1).

The example of Bronchipret® shows that there is indeed an increased amount of evidence being accumulated supporting the use of phytomedicines in respiratory tract infections.

SSP2

Phytoneering: modern research in the development of evidence-based phytopharmaceuticals
Prof. Michael A. Popp (Germany)

The treatment of a wide variety of diseases using plant-based medicines is steadily gaining importance in terms of their pharmaceutical efficacy, safety and quality. Today modern researched phytomedicines have to follow allopathic principles and have to find their place in evidence-based medicine. Fulfilling these requirements researched plant-based medicines can be the preferred alternative to chemical and synthetically produced medicines.

With its "phytoneering" methodology Bionorica has established the gold standard in the research and production of phytomedicines. "Phytoneering" stands for deciphering the active principles in botanicals (phyto) using innovative technologies (engineering) to research, develop and manufacture most effective and safe plant-based medicines.

The entire complex process from the development of appropriate seed material to the production of the final pharmaceutical product has to be scientifically standardized and thoroughly controlled. In addition comprehensive preclinical and clinical studies have to be performed to assure efficacy, safety and quality of plant-based medicines for the treatment and prevention of diseases.

Bionorica, family owned in third generation and celebrating its 80th anniversary in 2013 has become a global company marketing its products in 50 countries.

Cooperating with about 500 different research institutions and key opinion leaders worldwide the company's mission is to set benchmarks in the research and development of plant-based medicines – going beyond all existing standards.

One main focus of the company's work is the research and development of plant-based medicines for the treatment of adults and children with acute rhinosinusitis, acute and chronic bronchitis as well as urinary tract infections.

In these areas several ground-breaking clinical studies in complete conformity with Good Clinical Practice (GCP) guidelines have been completed lately. Studies are conducted following international clinical guidelines (e.g. European Position Paper on Rhinosinusitis and Nasal Polyps, EPOS) and are already recommended in national clinical guidelines.

SSP3

Fighting rhinosinusitis the natural way: tailored multi-target phytotherapy

Prof. André Gessner
University of Regensburg
Institute of Medical Microbiology and Hygiene
Regensburg, Germany

Rhinosinusitis is one of the most common infectious diseases worldwide and its incidence has increased considerably in the past few years. The pathophysiology of rhinosinusitis is dominated by inflammatory processes in the upper airways induced by viral or bacterial infection resulting in obstruction of drainage and ventilation in the nasal cavity and paranasal sinuses.

Based on these pathological challenges, the aim of an effective tailored multi-target therapy is the restoration of drainage and ventilation. Sinupret®, developed by Bionorica SE, is a uniquely composed herbal medicinal product containing five different herbal components (Gentianae radix, Primulae flos, Rumicis herba, Sambuci flos and Verbenae herba) as active principle.

In addition to the well-established preparations of Sinupret® a dry extract has been developed. For Sinupret® as well as the dry extract multiple pharmacodynamic properties related to the main pathology of rhinosinusitis were evaluated.

Strong antimicrobial activities were determined by in vitro bioassays using microdilution methods. The minimal bactericidal concentration (MBC) was calculated for gram-positive and -negative bacterial strains, relevant for upper airway infections. A substantial antiviral activity of nontoxic concentrations of Sinupret® against a broad panel of human pathogenic viruses causing infections of the upper respiratory tract was shown after treatment of the infected cells using plaque-reduction assays, analyses of cytopathogenic effects and ELISAs for viral proteins.

Sinupret® inhibits expression and activity of proinflammatory cytokines in vitro and mediates significant anti-inflammatory therapeutic activity in in vivo inflammation models.

Secretolytic effects of Sinupret® lead to activation of the secretion-producing cells and to increased bronchial secretion which was demonstrated in vitro and in vivo.