Young Researchers Abstracts

The survey on IL-10 -592 polymorphism in Iranian infected patients with HBV

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Background: Infection with hepatitis B virus (HBV) may result in a number of different clinical outcomes. There are strong evidences in HBV infection that host genetic factors play a major role in determining the outcome of infection. Cytokines have an important role in immune defense. Single nucleotide polymorphisms (SNPs) in the promoter region of the interleukin 10 (IL-10) genes have been reported to play a role in determining of HBV infection outcome. The aim of present study was to investigate the association between HBV infection and -592 polymorphism in the promoter region of the IL-10 gene in Iranian population.

Methods: A total of 200 cases including 100 hepatitis B patients and 100 healthy controls were enrolled in this study. Samples were tested for HBsAg by ELISA and HBV-DNA by PCR procedure. Total genomic DNA from peripheral blood leukocytes was extracted by the salting out procedure. Then one biallelic (-592A/C) polymorphism in the IL-10 gene promoter was analyzed by allele specific amplification (ASA) PCR.

Findings: No significant difference was found in frequency of genotypes of IL-10 gene promoter region at position -592 between controls and patients, but frequency of CC genotype was higher in the hepatitis B patients than that in the controls (12%vs16%).

Conclusion: It appears that polymorphism, 592 of IL-10 gene is not associated with HBV infection outcome in our study.

Dog bite in children, Guilan, north of Iran

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Background: Children are the most common victims of dog bites and suffer serious injuries especially in face and head. Dog bite in children is high and serious because of their lack of knowledge and experience about dog behavior, inability to escape from dog attack, and their size. This research aimed to determine the aspects of dog bite in children.

Methods: In a cross-sectional study in north of Iran, we surveyed 255 children less than 15 years old who had been referred to rabies vaccination centers after dog bite. Data were collected by a researcher-made questionnaire. Independent T-test, one-way analysis of variance and chi square test were used.

Findings: Male accounted for 190 (74.5%) of the patients. The mean age was 8.86±3.20 years. The majority (39.6%) of victims were bitten by their family dog. Bites to the lower extremities were most often received (64.4%). The Mean age differences in various groups of part of body bitten were significant (P=0.001). Circumstances leading to the dog bite in most children were entering to dog territory (27.5%) followed by, equal frequencies, plying with dogs (19.6%) and teasing the dog (19.6%). The differences in Circumstances leading to the dog bite between two genders and between rural and urban area were not significant. But it was significant in different groups of victim's age (P=0.03) and dog owners (P=0.0001). The peak time of dog bites in children were 12 pm to 18 pm. Most bites occur during the spring in Iran.

Conclusions: Design and perform educational programs for children and their parents can be useful for dog bite prevention. These programs should train dog behavior; risk of dog bites and how they can keep themselves form dog attack. Also responsible dog owners for their dogs' behavior should be emphasis.

IL-10 -819 polymorphism is not association with the outcome of hepatitis B virus infection in Iranian population

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Background: Hepatitis B virus (HBV) is the most common cause of acute and chronic liver disease worldwide, especially in several areas of Asia and Africa. Polymorphisms in the promoter region of interleukin 10 affect IL-10 production and confer susceptibility to inflammatory disease. The aim of this study was to determine the possible association of polymorphism (-819 T/C) in the IL-10 gene promoter with the susceptibility of Iranian population

to hepatitis B virus (HBV).
Methods: Blood samples were taken from 200 cases including 100 healthy controls and 100 (HBsAg+ and HBV-DNA+) patients. The -819 T/C polymorphism in the IL-10 gene promoter was analyzed by allele specific amplification PCR technique.
Findings: No significant difference was found in frequency of genotypes of IL-10 gene promoter region at position -819 between controls and patients, but frequency of CC genotype was higher in the hepatitis B patients than that in the controls.
Conclusion: It appears that -819 polymorphism of IL-10 gene are not associated with the susceptibility of Iranian population to hepatitis B virus in our study.

The Correlation between Attention Deficit Hyperactivity Disorder (ADHD) and Asthma in children with Asthma

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Background: Attention Deficit Hyperactivity Disorder (ADHD) is the most common childhood neurological disorder that affects 5-10% of children of school age. It seems that the disorder is more common among children with asthma. The aim of this study was to investigate ADHD in children with asthma and compare it with a control group in patients referring to Amir Kabir hospital of Arak, Iran.
Methods: This case-control study was performed on 100 children with asthma and 100 children without asthma in the age bracket of 5-16 years old. In all patients, Conners questionnaire [based on the diagnostic and statistical manual of mental disorders, fourth edition (DSM-IV)] and a demographic checklist about age, gender, mother's age at the birth, history of maternal disease and smoking by the mother during pregnancy, birth weight and history of major disease in child were filled. The data was analyzed using descriptive an analytical statistics in SPSS15.
Findings: Attention deficit was observed in 10 cases (10%) with asthma and 9 controls (9%) (P=0.63) that, this difference was not significant between the two groups. Whereas, in the case and control groups 27 (27%) and 7 children (7%) were affected by hyperactivity – impulsive behavior, respectively (P=0.002).
Conclusion: hyperactivity – impulsive behavior in children with asthma is significantly more common than control group. Thus evaluation and monitoring of ADHD in children with asthma is recommended.

Physical activity linked to cognitive flexibility in children with autism spectrum disorder

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Background: Children with autism spectrum disorder (ASD) have significant impairments in common areas of development such as overall motor and physical maturity. To examine association of physical activity behavior with an important child outcome such as cognitive functioning, we aimed to objectively measure the physical activity patterns and investigate its associations with the cognitive performances.
Methods: A random sample of 68 students aged 6 to 16 years from special schools for children with ASDs in Tehran were approached. Assessment included demographics, children's behavioral profile and measure of cognitive functioning (i.e. Wisconsin card sorting test (WCST)). Physical activity was measured objectively, using an Actigraph GT3X on the right hip for seven consecutive days.
Findings: Pearson correlation showed that WCST score is correlated with Five bouts (r =0.32, P =0.008), sedentary state (r= -0.328, P=0.006) and MPVA (r= 0.332, P=0.006). After removing the effect of age using partial correlation analysis, perseveration error was significantly correlated with MPVA (r= -0.33, P=0.006r), sedentary state (r=0.26, P=0.03), five bouts (r=-0.28, P=0.02).
Conclusion: Findings revealed that both physical activity and sedentary behaviors are associated with cognitive flexibility of children with ASD.

Effect of Modified Constraint Induced Movement Therapy on Quality of Upper Extremity Skills in Children with Hemiplegic Cerebral palsy

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Background: Constraint induced movement therapy is approach that limit with correct upper limb a person affected hemiplegia obligate use of affected limb.Aim of this study was investigation modified constraint induced movement therapy on Quality of Upper Extremity Skills in affected limb in children

with hemiplegic cerebral palsy.
Methods: this randomize clinical trail single blind 21 hemiplegic with cerebral palsy children was perform. Cases randomly to balance the two groups were divided into experimental (n=11) and control(n=10). Common Practice in Occupational Therapy 6 weeks for both groups were equally and intervention group 3 hours daily was used constrain induced movement therapy methods. Quality of upper extremity skills pre & post intervention based on the Quality of Upper Extremity Skills Test(QUEST) was evaluated. Statistical tests Kolmogrov - Smirnoff, Chi square, t-test and repeated measurement test with SPSS 16 for analysis data was used.
Findings: mean age children in the experimental group (7 girls, 4 boys) 46/55±17/5 month & mean age control group children (5 female, 5 male) 48/10±19/2 were determine. Internal analysis of all items in interventional group were significant after 6 weeks of treatment(P<0.05).but in control group only grasp item was significant(P<0.05).Analysis between two groups did not show any significant difference in total and subtitle score including dissociated movmet, weight bearing and protective extension. But only grasp subtitle showed significant difference between two grops(P<0.05).
Conclusion: This study showed that modified constraint induced movement therapy could be effect only in quality of grasp.

Rapid phenylketonuria genotyping by screening for some specific exons in the PAH gene

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Background: Phenylketonuria (PKU), the most prevalent disorder of amino acid metabolism, is a widespread autosomal-recessive hereditary disease. Mutation analysis of phenylalanine hydroxylase (PAH) gene of a given population could be helpful for further understanding of the greatest prevalence of PAH disease-causing mutations on some specific exons or intervening sequences. This gene spans about 90 kb on chromosome 12q and comprises 13 exons and 12 introns.
Methods: Genomic DNA was extracted after collection of blood samples from 24 Kurdish-PKU patients borned in Kermanshah province. The DNA fragments containing all 13 exons of PAH gene and their flanking intronic sequences were amplified and sequenced. In order to rule out cofactor deficiency, differential diagnosis of hyperphenylalaninemias based on urinary pterin analyses was performed.
Findings: The greatest prevalence of PAH disease-causing mutations, in decreasing frequency, were founded in exons 2, 9, 11 and 7 and their exon-flanking intronic sequences. These regions, altogether, contain almost all of the mutant alleles with a relative frequency of 83.5%.
Conclusion: In summary, our results are different from other studies in Iran (including: Tabriz, Isfahan, Ahvaz and Mashhad) in which exons 7 and 11 and their adjacent introns carry most of the mutations. Therefore, it may be necessary to study the PAH gene mutations in other provinces in Iran separately. These results suggest that to achieve an efficient detection strategy, these four exons should be first chosen in DNA testing. Also, it could be helpful for facilitating genetic.consultation of patients′ families and prognostic evaluation of future cases of phenylketonuria (PKU) in Kermanshah province.

A Research about Humanoid Robot and Eye-Contact of Children with Autism

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Background: The research was about effect of Humanoid Robot on Improvement Eye_Contact of Autistic Children.
Methods: In the research used of a multiple baseline, single-subject design with control and tested 5autistic children (2 girls & 3 boys) at Tehran in 2010. The children ranged in age from 7 to 9 and tested by Gilliam Autism Rating Scales (GARS) to measure the symptoms in order to ensure the presence of substantial autistic symptoms. In the study used a semi-automatic humanoid robotic doll with remote control. Also we design a short scenario for the experimental sessions, before the main test. The scenario was established by the three pilot sessions on autistic child. We observed children for 15 sessions. The experimental sessions were administered twice a week for 7 weeks, 30 minutes for each session, 15 minutes for eye-contact of robot-human and 15 minutes for observe eye-contact development of human-human. All The sessions were recorded by two cameras and finally rated by independent observers in the number of seconds of human-human eye-contact in each session.
Findings: The results shown, the scores of their eye-interaction for the duration of the sessions is an ascending Continuation that it is probably, the effect of the independent variable.
Conclusion: Robots have been shown to be a catalyst for increased some of skills in autistic children, yet that effect requires further study to be effectively employed as a therapeutic intervention and many children need extensive therapy for years to improve their behavior and facilitate integration in society.

Degree of freedom priority on vestibular stimulation for cerebral palsy children rehabilitation

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Cerebral palsy in children is the main problem on their postural balance. This paper presented a new inventive rehabilitation method for CP patients which are based upon vestibular stimulation utilizing vestibular bed. vestibular bed is a robotic instrument that designed and manufactured at University of Social Welfare and Rehabilitation Sciences (USWR) in order to simulate five degrees of freedom (DOF) for cerebral palsies patients' vestibular stimulating Rotation (Spinning), Medio-Lateral Tilt, Anterio-Posterior Tilt, Ascending descending, and acceleration deceleration, were used for rehabilitation of cerebral palsies children. Every patient should have a special rehabilitation program. Based on psychological and musculoskeletal conditions, also the limitations regarding the instrument and his/her rehabilitation program.For more adjusting between CP patient, Instrument and environment slow tilting and Rotation (Spinning) achieved better results. Other degrees of freedom such as Tilting, and Ascending /descending, respectively had an appropriate interaction and acceleration and deceleration prepared not familiar position for patient.
Slow tilting and rotation (Spinning) at the first step with gradually increasing velocity could help patients to have a better adjustability and make a favor sense to make good results.

IL-17F mutation in Recurrent Aphthous Stomatitis

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Background: Recurrent Aphthous Stomatitis (RAS) is a common oral inflammatory disease with unknown pathogenesis. Although the immune system alterations could be involved in predisposition of individuals to oral candidiasis, precise ethiologies of RAS have not been understood yet. Considering the inflammatory nature of interleukin (IL)-17F and RAS, we aimed to sequence the gene in a number of patients with RAS to identify any disease-associated mutation.
Methods: Sixty-two Iranian patients with RAS and fifty healthy subjects enrolled in this study. After DNA extraction from the whole blood, amplification was accomplished by polymerase chain reaction for IL-17F.
Finding: The results of sequencing revealed a missense, heterozygous mutation, converting a threonine to proline in a patient with RAS. The Polyphen software suggested a damaging probability predicting this substitution to have a harmful effect on IL-17F protein function. Nevertheless, this substitution was predicted to change the β-aggregation propensity using TANGO software. Such mutation was not detected in any control subject. In addition, one of the IL-17F SNPs is associated with the RAS.
Conclusion: This is a first study showing a mutation that seems to be associated with susceptibility to RAS. Further studies on more patients with RAS are required to confirm this finding.

Association of MTHFR variant C677T with Retinoblastoma

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Background: Folate and methionine metabolisms are involved in DNA synthesis and methylation, and polymorphisms in genes of folate metabolizing enzymes have been associated with some forms of cancer. MTHFR is one of the most important genes of this pathway and the C677T polymorphisms of this gene has been found to reduced the MTHFR enzyme activity and it lead to lower folate levels. Low levels of folate during retinogenesis may have increased uracil misincorporation, hypomethylation and, as a consequence, be more likely to develop postzygotic mutations in RB1. The aim of current study is to evaluate association between MTHFR C677T polymorphism with retinoblastoma.
Methods: C677T polymorphism was evaluated in 93 retinoblastoma patients and 194 cancer free normal controls using PCR-RFLP and the products were separated on 12% polyacrylamide gels. The results were analyzed using Chi square test and SPSS software.
Findings: Allelic frequencies of C and T alleles were 0.828 and 0.172 in cases and 0.724 and 0.276 in controls, respectively. Genotypes frequencies of CC, CT and TT in cases were 0.677, 0.301 and 0.022 and in controls were 0.515, 0.418 and 0.067, respectively. Chi square test showed significant differences between cases and controls (P= 0.022).
Conclusion: Frequency of T allele and T containing Genotypes (TT or CT) were significantly lower in patients than in control and the results show a

protective effect for T allele. Further studies in larger cohorts are needed to be performed.

Evaluating of cell death induced by novel synthetic Coumarin Derivatives in human leukemia cell line HL-60

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Bachground: Synthetic 3, 4- dihydro pyrano chromene derivatives are a group of chromone compounds able to modulate the cytokine pattern of hPBMCs. We investigated the mode of cell death induced by the new synthetic derivatives in the human leukemia cell line HL-60.
Methods: The cells were incubated with the compound concentrations up to 500 nM for periods between 6 and 48 hours, followed by morphological and biochemical analyses. The compounds with most potent anti-proliferative activity induced DNA fragmentation, externalisation of phosphatidyl serine besides disruption of membrane integrity.
Findings: Derivatives with pyridine substitution or Cl on D ring was the quickest acting compounds with a lag phase of 6h, followed by those with R = Br and potent activity in 12h, the last was derivatives without phenol C ring with 24 h.
Conclusion: We therefore suggest that, in our experimental settings, potent derivative- induced cell death occurs by necrosis-like death, while phenol C ring-containing compounds induce apoptosis-like death. Keywords: Dihydro pyrno chromene, apoptosis, HL-60, cell death.

Can otoacoustic emission (OAE) predict a hearing loss in Neonatal hyperbilirubinemia?

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Background: hyperbilirubinemia is one of the most disease in term and preterm neonate. A bilirubin level of more than 85 umol/l (5 mg/dL) manifests clinical hyperbilirubinemia in neonates, since with increase level of bilirubin in body many problems like sclera icterus, yellowing of the face and central dysfunction may be achieved. Unfortunately in Neonatal unit just use otoacoustic emission (OAE) to screening of hearing, but this test only evaluate the cochlear and not evaluate the 8th nerve and central auditory pathway, since central hearing loss easily be miss. And after a times a parent of children because inattention of Infant to sound refer to a pediatrician.
Methods: This pilot study conducted with 9 neonate (3 male, 6 female) with hyperbilirubinemia more than 20 mg/dL that had been referred to pediatric audiology clinic of rehabilitation faculty of tehran university of medical science. We use otoacoustic emission (OAE) and behavioral observation audiometry (BOA) to evaluation of auditory system.
Findings: among 9 neonates that evaluated with otoacoustic emission (OAE) 6 neonates have perfect OAE, 2 neonate abnormal OAE and 1 neonate in ambiguous range. In behavioral observation audiometry (BOA) only 2 neonates show behavioral auditory response, even with max of intensity, and others haven't any response.
Conclusion: we can conclude that in neonate with hyperbilirubinemia more than 20 mg/dL and absent response in BOA, the OAE test can't be a sensitive test to predict hearing loss in neonate with hyperbilirubinemia. Since it is essential in Neonatal unit of hospital not use only OAE, also use BOA or auditory brainstem response(ABR) test.

Comparison of Brown Sugar and PEG in the treatment of functional constipation in children admitted to Children`s Medical Center of Imam Khomeini Hospital

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Background: Functional constipation is a common problem among children which consists 3 percent of outpatient referrals to doctors. Between 30 to 50 percent of children diagnosed with functional constipation, despite the medical treatment have long-term symptoms. Usual treatment is prolonged and relapse is common. Based on medicine books, there is no effective treatment with low-level of side effects for constipation, but considering the traditional practices might leads to increase the probability of detection of new treatments, reduction of side effects and medical costs as well. Therefore, conducting new medical researches and experiments in order to find effective treatments is an important issue.
Methods: This is a study of children whom were suffering from chronic constipation and admitted in Children's Medical Center of Imam Khomeini Hospital. Treatment with PEG was studied as a control. The study domain includes children who were less than 7 years old and suffered from constipation for more than 2 weeks. Among 60 participants, half of them were treated with products like Brown Sugar and others treated with PEG as a control. Careful medical examination of the patient before treatment was applied and other types of constipation pediatric gastroenterologist diagnoses were excluded. Specific to medical conditions of

every patient, proper dose of Brown Sugar pill has been prescribed for a period of a week. After completion of medication period, medical condition of patients has been examined in order to compare with patient's medical conditions before the treatment. Gastroenterologist diagnoses were excluded.

Findings: A large number of patients whom were treated with Brown Sugar had shown a significant improvement. Moreover, because of the long-term treatment with PEG, patients had preferred using Brown Sugar as medicine. Other comparisons and statistical analyzes are described fully in the text.

Conclusion: Brown Sugar as a safe and low cost product without any side effects is recommended as treatment for children whom are suffering from functional constipation.

Salmonella excretion by reptile pets in Tehran and its relationship with children

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Background: Salmonellosis is a zoonotic disease and reptiles have been known as reservoirs of Salmonella spp. Many reports of reptile-associated salmonellosis have been published in children around the world since reptile pets are increasingly kept by families.

Methods: A total of 270 feces and swab samples were collected from reptiles admitted to the specialized veterinary clinics in Tehran which belonged to 46 different species and underwent culture for Salmonella isolation. Commercial antisera were used to determine serogroups of the isolates. Data was analyzed using Chi-square test and fisher exact to find significant relationships between variables.

Findings: Even though most investigated reptiles were healthy Salmonella was cultivated from 168 samples (62.2%). Serogroups B, C, D, E, F, G, H, I, J, L, M, N, U, Y, 51, 52, 58, 61 were recovered from the 159 isolates, while more than half of them belonged to serogroups B and C. Children under the age of five lived in houses where 25 of the reptiles were kept. In addition, this group of children regularly visited households keeping 133 reptiles. Furthermore, owners of 55 reptiles used these animals for show in kindergartens. Analyzing the data indicated that owners who have kids were more likely to keep other animals as well (p=0.008) while keeping other animals in the house was associated with more positive culture results in this study (p=0.001). Finally, owners of 207 investigated reptiles were completely unaware of the risk of Salmonella.

Conclusion: Increasing number of pet reptiles kept by ignorant owners in Iran, in addition to the high percentage of Salmonella isolation in this study, and the close relationship of children with these pets overstate the need for an educational campaign and setting appropriate guidelines for keeping reptile pets at home alongside children.

Novel Multiplex-PCR for detection of DFNB3 hearing loss among Iranian Deaf Children

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Background: Hearing loss is the most common sensory deficient in human populations with prevalence of one in 650 newborns. The frequency increases during childhood about 2.7 per 1000 children before age of five. Approximately, genetic factors play role in 50% hearing loss. Nonsyndromic hearing loss (NSHL) accounts for about 80% of cases. DFNB3(Myo15A) was mapped in chromosome 16 and encodes an unconventional myosin XVA by motor protein function. Mutations in this gene are the most frequent cause of autosomal recessive nonsyndromic hearing loss after GJB2 and SLC26A4.

Methods: In this study, we designed five markers in up and down of Myo15A gene. In this study, two up and three downstream microsatellite markers was found by Map viewer, Sequence-based Estimation of Repeat Variability (SERV) and Tandem Repeats Finder (TRF) websites. Primer designing for multiplex-PCR was performed by Gene Runner and Primer3. Primers were blasted using NCBI's BLAST. The blood samples were collected in tubes containing EDTA and Genomic DNA was extracted using the salting out method. Microsatellite markers were amplified by fluorescently labeled primers. PCR products of multiplex-PCR were detected by 2.5 % agarose gel and confirmed by fragment analysis using ABI 3130 Genetic Analyzer.

Findings: We identified five different haplotypes among investigated individuals. The novel D17MYO15ASD19 marker was the most polymorphic microsatellite marker that had been selected by TRF website.

Conclusion: The Myo15A gene contains 66 exons and spans about 71 kb. Direct sequencing of this long gene is time consuming and expensive. Short tandem

repeat markers (STR) analysis by multiplex-PCR is cost effective method for detection of genetic causes of hearing loss among deaf children. In this study, we found some polymorphic markers in DFNB3 and designed multiplex-PCR for using genetic screening.

Nurses' attitude to safety in Milad Hospital, Kashan, Iran, 2012

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Background: Safety is an important factor in health care. Occupational injury rate in nursing are higher than other professions that imposes enormous economic burden on the healthcare system and society. This study was conducted to evaluation the nurses' attitudes to safety in Kashan Milad hospital.
Methods: This cross-sectional study was conducted in Kashan. Information through questionnaires Including demographic data and 30 questions about safety attitudes with a score (1-5), were collected. Then Safety attitude score was calculated. Score 120-150 was considered as a high attitude, 90-120 average and less than 90 as poor.
Findings: Mean safety attitude score was 125 ±8.8. Safety attitude score has a significant relationship with age, marital status, work history and also having child but no significant relationship with gender and ward.
Conclusion: In this study, the safety attitude score was high and nurses were aware of the need to their safety. Regarding the relationship between age and years of service with safety attitude, it is recommended to use the expertise of staff in health education programs.

Comparison of perceptions of nurses and premature infants mothers about mothers needs in Neonatal Intensive Care Unit

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Background: An important goal of nursing care in the NICU is to provide holistic care and enhance the best possible outcome. To achieve these aims, understanding perceived needs of mothers has great importance. This study aimed to compare of perceptions of nurses and premature infants mothers about mothers needs in neonatal intensive care unit (NICUs).
Findings: This was a cross - sectional comparative study with sample size of 63 nurses and 63 mothers with premature infants were selected throug a stratified sampling method, in the neonatal intensive care unit of four educational treatment centers affiliated to Mashhad University of Medical Sciences in two months using NICU Family Needs Inventory of Ward.The data was analyzed using descriptive-analytical statistical method in the SPSS v.16.
Findings: Among the subscales related to family needs, the following items were reported in order of importance by mothers: Proximity (95.37%), Assurance (94.18%), Information (91.15%), Support (79.77%) and Comfort (72.86%). Furthermore, need for Assurance (80.33%), Proximity (75.26%), Information (70.8%), Comfort (66.36%) and Support (64.83%) were nurses' perceptions of the needs of premature infants mothers in the neonatal intensive care unit in different subscale.
Conclusion: According to study findings, it is suggested Nurses according to the results of this study and periodic assessments of the mothers needs in the neonatal intensive care unit, to objectively define actual needs instead of placing subjective assumptions on mothers needs and to improve effective communication and interaction with mothers, Satisfaction of these needs based on priorities and importance of the view mothers facilitates the achievement of well-being in both the mother and infant.

Adverse effects of immunization during 1389-1391 in the central city of Esfahan Health

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Background: One of the most important advances in medical science has been vaccination that save millions of lives and the principle of vaccination is the most effective health interventions for health promotion in the world. One of the success factors in achieving high vaccination coverage is, public confidence in the safety and efficacy of vaccination that's why the quality of care and health outcomes securing and maintaining public confidence in immunization services is based on three decades of the immunization.
Methods: This is a retrospective study according to submissions that covered the health centers of Isfahan city health center 2 the statistics are recorded and then extracted and analyzed by spss software.
Findings: A total of 307, 169 vaccinations in three years: 359 Number of complication has been reported that 55% of males (196) and 45% of females (163), of which 89% in the city health centers (321) and 11% in rural health centers (38) have reported, only 6% of them were immediate report (21) that 50% of them were hospitalized (12).The complications have been reported: 15 cases of abscess at the injection site, and 195 cases of adverse lymphadenitis and 32 cases of high fever and 61 cases of intense localize adverse and 6 cases of joint pain and 9 cases of scream continuously and restless, and 5 cases of seizures, 29 cases of allergies and skin rashes, 26 cases of frequent vomiting, 6 cases of parotiditis, 13

cases of edema, inflammation and swelling, 4 cases of dyspnea, 3 cases of severe diarrhea, 1 case of lethargy and pallor and 1 case Other. Classification of complications include: 58% application error (210), 39% vaccine reactions (138), 2% synchronicity (8) and 1% injected reactions (3). The most common complication was BCG vaccination (196) and then DTP vaccine (114), MMR (38), dT (13), hepatitis (4), the lowest complications were polio vaccine (2) and meningitis vaccine (1). The most report of side effects of the vaccine was under the age of one year and the next 1-5 years because most vaccines are given in this age.

Conclusion: The most common complication of vaccine is for BCG vaccination (about 54%) and many of these complications related to technical errors of subcutaneous injection of BCG. This injection method is the most difficult to inject. The theoretical and practical training to all personnel involved in BCG vaccination program (except hospital personnel) should be placed on the agenda of health systems. Complications often reported by health systems and sometimes by hospitals therefor we need to inform the private sector and enable doctors to report vaccine side effects.

CCR5-Δ32 mutation is not association with the outcome of hepatitis B virus infection in Iranian population

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Background: Hepatitis B is a serious and prevalent disease in the world. Host genetic factors are an important factor in the progression of the disease. CCR5 is a main chemokine receptor on the surface of more immune cells and CCR5-Δ32 is a functionally null allele containing a 32-bp deletion. Some studies reported that there is a relationship between CCR5-Δ32 with clearance of hepatitis B in some of the world's populations. The aim of this study was to investigate association between this polymorphism with hepatitis B in Iranian population.

Methods: A total of 200 blood samples including 100 healthy controls and 100 HBsAg+ patients were used in this study. Samples were tested for HBsAg by ELISA and HBV-DNA by PCR method. Genomic DNA was extracted by salting out method. The genotype of extracted DNAs was determined by the conventional PCR technique.

Findings: Results of this study showed that none of the subjects in the control and patient groups had CCR5-Δ32 mutation, therefore there was no difference in frequency of genotypes of CCR5-Δ32 between controls and patients with hepatitis B infection.

Conclusion: It seems that CCR5-Δ32 polymorphism is not associated with HBV infection outcome in Iranian population.

6-year review of reported cases of acute flaccid paralysis in Esfahan Health Center, 1386-1391

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Background: The 1988 World Health Assembly resolution approved to eradicate poliomyelitis disease with clearance of polio wild virus.Despite over two decades as the Global Polio Eradication Initiative by WHO the spread of disease was prevented in more than 125 countries and only in four countries (Afghanistan, Pakistan, India, Nigeria) wild virus is circulating. Acute flaccid paralysis is a complex clinical syndrome with a wide range of differential diagnosis the etiology of the disease can be poliomyelitis, Guillain Barre Syndrom, traumatic neuritis and Transverse Myelitis. Diagnosis, timely reporting, and sample preparation is important for treatment and prognosis.

Methods: This descriptive - analytical study is retrospective and based on reporting suspected cases of hospital-based preparation and analysis by spss software.

Findings: During these six years, 28 cases of acute flaccid paralysis were under 15 years of discoveries. Protocol Identification of Acute Flaccid Paralysis in our country is 2 per hundred thousand of the population of under 15 years With a population of 200, 000 people under age 15 at this center over 6 years we have achieved the desired index But the trend of reported cases during the 6 years we have seen an increase in reported cases. All suspected cases except one were Iranians. All cases in the history of Vaccination have received 5 to 6 times of Vaccine. In all cases CP symmetry (excepte one case) existed. Evolution has been paralyzed from 2 to 3 days is consistent with the standard. All cases were diagnosed Resource Specialist Hospital. The initial diagnosis was Guillain Barre Syndrom, transverse Myelitis. All of polio after receiving the test failed, and the classification of Guillain Barre Syndrom and a transverse Myelitis are enumerated.

Conclusion: According to the AFP differential diagnoses other than GBS as Transverse Myelitis, Acute Myelopathy are and.initial reports seem to be far from reality in most cases as Guillain Barre Syndrom and according to the WHO criteria about reporting of AFP cases, the time of sampling, quality of sampling and the response time of laboratory, precision is necessary in any of these items.

IgG anti-IgA antibodies in patients with predominantly antibody deficiencies

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Background: Immunoglobulin replacement therapy has an important role in prevention of infectious and non-infectious complications of predominantly antibody deficiency (PAD) patients. However, all immunoglobulin products have traces level of IgA. So, PAD patients who are seropositive for anti-IgA antibodies are more prone to adverse reactions upon immunoglobulin replacement. This study was conducted to evaluate IgG anti-IgA antibodies in PAD patients receiving intravenous immunoglobulin (IVIg) and its predisposing factors.
Methods: 67 Patients with confirmed diagnosis of PAD who were under regular IVIg replacement therapy were enrolled in the study as well as 24 healthy individuals as negative control group and 8 symptomatic IgA deficiency patients as positive control group. IgG anti-IgA antibodies were measured by ELISA method.
Findings: There was a significant difference between Anti-IgA level of CVID and XLA groups (p=0.02). Mild adverse reactions were recorded in 19.4% of patients. Only 6 CVID patients were seropositive for IgG anti-IgA antibody. IgG anti-IgA level has a negative relationship with duration of treatment with IVIg and serum IgA level. (r=-0.06).
Conclusion: According to our data, there was a significant association between anti-IgA and adverse reactions. Findings of this study showed that there is no association between process of production of anti-IgA and other types of autoimmunity in PAD cases

Response of pediatrics cardiac structural and functional parameters to the 12-week aerobic exercise

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Background: Long-term activity in physiological situation lead to significant changes in the structure and function of the heart that provides an optimal performance of cardiovascular system. The purpose of this study was to examine Response of Pediatrics cardiac structural and functional parameters to the 12-week aerobic exercise. Method and methods: twenty healthy Pediatrics aged of 10-12 years, participated in this study. Subjects were randomized to one of two groups: control and exercise (each n=10). The subjects in the exercise group performed aerobic exercise training (running) up to 50 - 70 % of HR max, four times for 12 weeks. The End diastolic dimensions, end of diastolic volume, left ventricular mass, stroke volume, cardiac output, left ventricular posterior wall thickness and fraction injection were measured with Echocardiography system at baseline and end of week 12.
Findings: The End of diastolic dimensions and end of diastolic volume significantly increased (P< 0.05). While the control group did not significantly change any of these parameters. As well as were observed No significant changes in stroke volume, cardiac output, and left ventricular posterior wall thickness and the injection fraction of both groups (P > 0.05).
Conclusion: the present study demonstrates that long-term aerobic exercise training have a optimal effect on some of cardiovascular system parameters in Pediatrics.

A Glance At Medical Students Experiences Of Childhood Domestic Accidents

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Background: Accidents are the leading causes of hospitalization in children. Approximately 13% of the total burden of disease in children under 15 years are included. Achieving an appropriate approach for the prevention of accidents and incidents requiring detailed knowledge about the life experiences of children from accidents. The purpose of this study is to report students' own experiences are events of his childhood home.
Methods: In this qualitative study in 2012, 22 students of Golestan University of Medical Sciences using the purposeful sampling and data saturation participated in the study. The data gathered by individual semi-structured interviews. At least an open question "Tell us the childhood domestic accidents" and explore questions such as "Why and how to check and example" was used repeatedly in interviews. Participants were allowed to record. All interviews taped recoded, manuscript, line by line review, coding, classification and according to the method of "quantitative content analysis" were analyzed.
Findings: The main theme was "Indiscretion carers" With sub-themes "feet, loneliness, home safety and games". Events such as; fractures, burns, cuts, electrocution, asphyxiation and Be dropped the items that participants had experienced in his childhood. Economic damage is also often accompanied by physical injury.
Conclusion: Childhood experiences of medical students, it was confirmed that the children at home and at play are continuously exposed to injuries. Not around the child's mother or caregiver will increase accidents. Unsafe homes and appliances and their improper arrangement in these events is very important.

Comparative study of the incidence rate of otitis media with effusion consequented acute otitis media in children with two different antibiotic therapeutic methods

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Background: Acute otitis media (AOM) is a common disease in children and consists one- third if visits in pediatrics clinics.The most common form of AOM is otitis media with effusion(OME) usually happens during the first two years of life. After an attack of AOM, the middle ear effusion remains after 1, 2 and 3 months in 40%, 20% and 10% of childrenrespectively. The risk of OME is depending on antimicrobial treatments. Therefore we decided to investigate the rate of OME following AOM in children after two types of treatment including co-amoxiclave and ceftriaxone.
Methods: In this study 90 patients aged between 6 months to 11 years were entered. All cases were visitedas outpatient in 22 Bahman and AryaHospitals of Islamic Azad University of Mashhad. After acomplete physical exam, a questionnaire based on patient's details and clinical findings was completed. Based on the table of random number, a series of numbers were chosen and the patients were treated with one of antibiotics (co-amoxiclaveor ceftriaxone)randomly.At the end of treatment period, another clinical examination and a tympanometry were performed for all cases.
Finding: Fifty four patients (56 ears)had OME from a total of 108 ears with AOM.Based on type B tympamometry, the rate of occurrence of OME in children who received co-amoxiclavewas about32% and in those who treated with ceftriaxone was 73.18% (P=0.001).This study showed that presence of smoker parentshad significant effect in occurrence of OME (P= 0.03); But age, gender, history of AOM and history of allergy didn't have significant effect in occurrence of OME in either group.
Conclusion: Co-amoxiclave is more suggested for children with AOM, furthermore this treatment is more effective in patients with presence of a smoker parent.

The effect of CCR5-59353C/T promoter polymorphism on chronic HBV infection

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Background: CCR5 is an important chemokine receptor involved in the recruitment of specific anti-viral immune cells (e.g., NK cells and T cytotoxic cells) to the liver. CCR5-59353(C/T) is an important promoter polymorphism of chemokine receptor 5 gene. In some studies showed that there is a relationship between CCR5-59353(C/T) polymorphism with clearance or persistence of HBV infection. In the present study, this polymorphism was investigated with the aim of finding an association with chronic HBV infection in Iranian population.
Methods: A total of 200 blood samples including 100 healthy controls and 100 HBsAg positive patients were randomly selected. Samples were tested for HBsAg by ELISA and HBV-DNA by PCR method. Genomic DNA was extracted from blood buffy coat using the salting out method. CCR5-59353(C/T) polymorphism was genotyped by allele specific amplification (ASA) PCR. Chi-square test was used for statistical analysis.
Findings: Five percent of control samples and Twelve percent of patient samples had CC mutant genotype. Nevertheless, there was no significant difference in genotypes frequency of CCR5-59353 between the two groups (P = 0.1).
Conclusion: It seems that CCR5-59353 polymorphism is not associated with chronic HBV infection outcome in Iranian population. However, frequency of CC genotype was higher in the patient group (12%) than control group (5%).

Cohort of 173 Iranian common variable immunodeficiency patients

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Background: Common variable immune deficiency (CVID) is the most frequent form of symptomatic primary immunodeficiency diseases, characterized by hypogammaglobulinemia, recurrent infections, and increased predisposition to autoimmunity and malignancies. The aim of this study is to reconsider all important points of previously performed studies on Iranian CVID patients diagnosed and followed from 1984 to 2012.
Methods: All Iranian CVID patients referring to Children Medical Center of Tehran University of Medical Sciences during 1984-2012 were included after obtaining written informed consent. The study was approved by the ethics committee of our

university. Diagnosis was made using the approved criteria including reduction of at least two serum immunoglobulin isotypes by 2 SD from normal values for age and exclusion of other well-known single gene defects in individuals with age < 4 years and evidence for specific antibody deficiency. Analyzing the data, version 17 of SPSS Software was used. A p value ≤ 0.5 was considered as statistically significant.

Findings: Detailed information in demographic and epidemiologic data, survival rates, clinical phenotypes, manifestations, immunologic and genetic data, complications, and treatment issues are provided.

Conclusion: Our study revealed some clinically related correlations regarding consanguinity, population of Naïve CD4+ T cells and switched memory B cells, different cytokines, HLA alleles, and etc. in CVID. Despite all of the efforts done to now, and as CVID is a heterogeneous disease with different clinical manifestations, more comprehensive studies are needed especially for classification and investigation of prognostic factors, in order to decrease the mortality and morbidity rates.

بررسی علل مرگ و میر نوزادان و عوامل مرتبط با آن در NICU بیمارستان شهید مصطفی شهر ایلام از مهر ۱۳۸۸ تا مهر ۱۳۹۱

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مقدمه: با توجه به این که کاهش میزان مرگ نوزادی نشانگر بهبود وضعیت سلامت و بهداشت جامعه می باشد، دانستن علل عمده مرگ نوزادان در برنامه ریزی صحیح جهت تقویت سیستم های مراقبت دوران بارداری، زایمان و نوزادان در جامعه بسیار موثر است.

روش کار: در این مطالعه توصیفی- مقطعی، ۲۲۵ نوزاد بستری شده در بخش NICU بیمارستان شهید مصطفی ایلام طی مهر ۱۳۸۸ تا مهر ۱۳۹۱ مورد بررسی قرار گرفتند .اطلاعات مورد نیاز جهت تکمیل پرسشنامه ها (که روایی آن توسط اساتید مربوطه تایید گرفت) با مراجعه به پرونده های نوزادان فوت شده و پرسش از خانواده آن ها جمع آوری شد. اطلاعات بر اساس جنس، سن حاملگی، وزن هنگام تولد بر حسب گرم، نوع زایمان، آپگار، محل سکونت، سن مادر، عوارض حاملگی و زایمان و علت فوت و سن هنگام فوت بود .داده های وارد نرم افزار SPSS نمونه ۱۶ شد و توسط آزمون های کای اسکور، ANOVA و تی تست زوجی مورد تجزیه و تحلیل قرار گرفت. سطح P کمتر از ۰/۰۵ معنادار تلقی گرفت .

یافته ها: در این مطالعه ۵۰ نوزاد فوت کرده بودند (میزان مرگ و میر۲۲/۲٪). علل مرگ و میر نوزادان شامل سندرم دیسترس تنفسی (۲۵٪)، سپسیس و عوارض آن (۴۱٪)، آسیفکسی(17%) ، ناهنجاری قلبی مادرزادی (۱۳٪) و سایر علل (۴٪) بود. علل مرگ و میر نوزادان کم وزن و نوزادان نارس مشابه بود. همچنین رابطه معناداری بین علل مرگ و میر نوزادان و سن حاملگی، وزن هنگام تولد، آپگار، سن هنگام مرگ و عوارض حامگی یافت شد. بین علل مرگ و میر و جنسیت، سن مادر، نوع زایمان، محل سکونت، سابقه بیماری مزمن در مادر و عوارض جفت و بند ناف و پرده ها رابطه معنا داری وجود نداشت.

نتیجه گیری: شایع ترین علل مرگ و میر نوزادان، سپسیس و سندرم دیسترس تنفسی بودند. بنابراین پیشگیری از زایمان زودرس برای کاهش نارسی و عوارض وابسته به آن پیشنهاد می گردد تا میزان مرگ و میر نوزادی کاهش یابد.