

triglycerides, total cholesterol, high density lipoprotein (HDL) cholesterol, apolipoproteins (AI and B), lipoprotein(a) and polymorphisms the G279A locus of the CETP gene, were determined.

Results In children with genotype B1B1, a significantly lower % cholesterol concentration in the HDL fraction was found than in those with genotype B1B2 and B2B2. Children with genotype B1B1 were significantly shorter in stature than children with genotypes B1B2 and B2B2. Other biochemical parameters, such as levels of apolipoproteins (AI and B) and lipoprotein(a) were not significantly different between these genetic polymorphisms.

Conclusion In the future, proper early prevention based on the modification of risk factors, periodic lipid profile control, and the assay of markers of early atherosclerosis changes can reduce morbidity and mortality due to cardiovascular system diseases among children.

745 DENVER II DEVELOPMENTAL TEST PERFORMANCE OF THE CHILDREN WITH IRON- DEFICIENCY ANEMIA BEFORE AND AFTER THE TREATMENT

doi:10.1136/archdischild-2012-302724.0745

M Inalhan, T Ozlem, A Ozlem, C Mehmet, Y Feyza, Y Ayşegül. *Clinics of Paediatrics, Zeynep Kamil Obstetrics, Gynecology and Paediatrics Training and Research Hospital, Istanbul, Turkey*

Objective It is known that non-treatment of iron deficiency anemia in early childhood results mental and cognitive retardation. In our study we aimed to examine the Denver-II developmental test performance of the children with iron-deficiency or iron- deficiency anemia before and after 3 months of the treatment.

Materials and Methods 53 children aged between 1 and 6 years whom diagnosed as iron deficient or iron deficiency anemia were studied. Denver-II test were applied to the cases before and after 3 months of the treatment. The Denver Test results were classified as normal, suspicious and abnormal.

Results Suspicious Denver-II test results were found significantly higher in iron deficient anemic infants compared with iron deficient children ($p<0.01$). The initial measurement level of ferritin and transferrin saturation were found significantly low in children with suspicious test results compared with children with normal test results.

Before iron therapy, the rate of normal Denver test results in iron deficient anemic children was 42.5% and 81.5% in iron deficient children. After treatment the rate is 100% for iron deficient anemic children and 92.6% for iron deficient children.

Conclusion If iron deficiency could be treated before it becomes chronic or serious, motor, cognitive and behavioural development deficits can be prevented.

746 GLAZMANN THROMBASTHENIA: SINGLE CENTER EXPERIENCE

doi:10.1136/archdischild-2012-302724.0746

B Kutlubay, N Ozdemir, G Tuysuz, H Apak, T Celkan. *Pediatric Hematology-Oncology Dept., Istanbul University, Cerrahpasa Medical Faculty, Istanbul, Turkey*

Aim Glazmann thrombasthenia is a rare autosomal recessive disease characterized by defect in platelet aggregation. Here we report the management of children with Glazmann thrombasthenia followed at Cerrahpasa Medical Faculty Pediatric Hematology Department.

Methods Nineteen patients' (42% girls, 58% boys; median age: 10 months) files were retrospectively reviewed.

Results The median age of the start of bleeding symptoms was 9 months (2 weeks-24 months). All patients presented with easy bruising and mucosal bleeding. Fourteen patients' parents were consanguineous. In 15 patients, flow cytometry was performed. According to this, 7 had type I, 6 had type II and 2 had type III

disease. Nine patients were treated by thrombocyte transfusion, tranexamic acid, recombinant active factor VII and fibrin glue as a single or combined therapy in invasive procedures; none of them had a major bleeding complication.

Conclusion Bleeding control of invasive procedures may be challenging in children with Glazmann thrombasthenia; local treatments, DDAVP, steroid and antifibrinolytics may be used with success.

747 ETHIOLOGICAL FACTORS AND PREVALENCE OF ZINC DEFICIENCY IN CHILDREN WITH IRON DEFICIENCY ANEMIA

doi:10.1136/archdischild-2012-302724.0747

M Inalhan, Y Feyza, T Ozlem, A Ozlem, C Mehmet, O şuera. *Clinics of Paediatrics, Zeynep Kamil Obstetrics, Gynecology and Paediatrics Training Research Hospital, Istanbul, Turkey*

Introduction and aim: Iron deficiency is the most common nutritional deficiency in developing and developed countries. In the developing countries iron and zinc deficiency are seen together. In our study we researched the prevalence of zinc deficiency and etiological factors in iron deficiency anemia.

Materials and method A study group consisted of 40 children, aged between 1–14 years, diagnosed with iron deficiency anemia who submitted to our clinic with different complaints between January and August 2010. Control group consisted of 40 healthy children Age, sex, birth weights, history of mother's prophylactic iron supplement used in pregnancy, prophylactic iron supplement usage, breastfeeding duration time, initial supplement feeding age, meat, fruits-vegetables consumption, pica history, the blood count variables, serum iron levels, iron binding capacity, ferritin and serum zinc levels were recorded.

Findings There was no significant difference between test and control groups in duration of breast feeding time and initial time for supplementary feeding($p>0.05$). Positive correlation was found between breast feeding time and iron levels and transferrin saturation indices($p<0.01$). Fruits and vegetables consumption were found significantly low in test group.

Number of hospital admissions were also found to be significantly high in the test group.

The serum zinc levels of the children who have had prophylactic iron supplements were significantly high compared with the children who have had no prophylaxis ($p<0.05$).

Conclusions As a result of this research, factors namely breast feeding duration time, prophylactic use of iron supplements and fruit and vegetables consumptions have a large role to prevent children from the iron deficiency.

748 DETECTION OF INTRON 22 GENE INVERSION (COMMON MUTATION) IN SEVERE HEMOPHILIA A IN KHOUZESTAN PROVINCE

doi:10.1136/archdischild-2012-302724.0748

A Ghasemi, B Keikhaei, K Zandian, H Galedari. *Pediatric Hematology-Oncology, Mashhad University of Medical Sciences, Mashhad, Iran*

Introduction Hemophilia A, is the most common severe coagulation disorder with an incidence of 1 in 5000 males. The most common genetic alteration is a gene inversion, which occurs in approximately 45% of patients with severe hemophilia A.

The goal of the study was to assess the presence of the intron22 inversion in patients with severe hemophilia A from Khozestan province.

Materials Twenty-five patients with severe hemophilia A and 15 mothers of these patients participated in the study patients were referred from the thalassemia service of Shafa Hospital to detect the

presence of intron 22 inversion in the patients with severe hemophilia A.

Results Patients were aged 2–30 years. Six(24%) patients were diagnosed during the neonatal period, 11(44%) between 1–12 months, 5(20%) between 1–2 years, 2(8%) between 2–3 years and 1(4%) at 3.5 years. In our patients, 1–8 joints were affected. The mean joints involvements were 3.3 ± 1.8 . Of the 25 patients with severe hemophilia A, 7 patients had the intron 22 inversion. Seven of 15 mothers also presented with the intron 22 inversion. In all 7 cases, mother and son had the same intron 22 inversion, no new mutation was found in our patients.

Conclusion The prevalence of the intron 22 inversion in hemophilic patients is 28%. This prevalence is lower than that reported Worldwide. Based on this study and other reports, we recommended that the detection of intron 22 inversion is performed as a genetic screening test in hemophilic patients.

749 HUMAN IMMUNOGLOBULINE ROLE IN TREATMENT OF IDIOPATHIC THROMBOCYTOPENIC PURPURA

doi:10.1136/archdischild-2012-302724.0749

¹V Grajqevci, ²R Macastena, ³B Abrashi, ⁴F Selimi, ⁵E Bajrami. ¹Hemato-Oncology Department; ²Pediatric Clinic, University Clinical Centre of Kosovo, Prishtina, Kosovo

Introduction Idiopathic thrombocytopenic purpura is a disorder, in which immune system destroys platelets, which are necessary for blood clotting. ITP persons have a very low platelet count. ITP appears when the immune system produces antibodies against platelets. This disorder attacks equally boys and girls.

Objective The purpose of study was to present cases and treatment of the patients who are hospitalized in Pediatric Clinic in Prishtina at the hematology-Oncology unit.

Materials and Methods In this study there are included 24 cases that are hospitalized in chemato - Oncology unit during 2011 and their treatment. The diagnose is made based on anamnesis, clinical examinations, laboratory checks, biochemistry, ultrasound examinations, and bone marrow biopsy.

Results 7 cases (29.1%) were treated with human immunoglobulin, while 17 cases (69.9%) were treated with steroids. Immunoglobulin treatment last for 5 days. The second day of treatment with human immunoglobulin the average platelet count increase was 30% higher, while in the fifth day platelet count arrived normal values. In patient treated with steroids platelet count began to rise after one week of treatment., in most cases platelet count was normal after two weeks of treatment.

Conclusion Immunoglobulin therapy is a very efficient therapy in acute idiopathic thrombocytopenia especially in serious and possibly fatal complications such as gastrointestinal and intracranial bleeding.

750 DETERMINING THE MEAN CORD BLOOD IMMATURE PLATELET FRACTION (IPF) OF HEALTHY NEWBORNS

doi:10.1136/archdischild-2012-302724.0750

¹A Günlemez, ¹M Oruç, ²HM Kır, ²M Çekmen, ¹AS Gökalp. ¹Neonatology; ²Biochemistry, Kocaeli University, Kocaeli, Turkey

Thrombocytopenia is the most common hematologic abnormality in newborn infants Immature platelet fraction (IPF) shows megakaryopoetic activity. The purpose of this study is to provide non-invasive new approach to thrombocytopenic infants for further studies by determining the normal levels of the mean cord blood IPF of healthy newborns.

Methods Healthy newborns who were born at Kocaeli University in 2012, took place in this study. One ml of cord blood was obtained into EDTA tubes. Platelet counts and the mean IPF levels were

studied with XE-100 (Sysmex) device. If taking blood to detect blood group is needed in 24–48 hours, IPF levels have been reworked.

Results A total of 75 infants were enrolled in this study. Mean gestational age 37.5, birth weight 3032g, platelet count 234.000/mm³, average levels of cord blood IPF 5.19%, IPF level in 48th hour were found to be 4.3%.

Discussion In healthy adults, the normal values of IPF has been reported as 3.4% on average from 1.1 to 6.1%. Increased levels of IPF are shown to be related to increased platelet production; particularly in disorders related to the destruction of platelets and normal and low values of IPF are shown to be related to decreased platelet production conditions. There are limited number of researches which investigate IPF values in neonates.

Conclusion In this study we found average levels of cord blood is IPF 5.19%. Determining the right approach to thrombocytopenic patients will be possible by recognizing the normal ranges of IPF values in healthy newborns.

751 ARE INFANTS OF DIABETIC MOTHERS MORE PRONE TO IRON DEFICIENCY?

doi:10.1136/archdischild-2012-302724.0751

¹Ş Coşkun, ¹H Bilgen, ¹H Özdemir, ²Ö Şirikçi, ¹E Özek. ¹Marmara University School of Medicine Department of Pediatrics, Neonatology; ²Marmara University School of Medicine, Department of Biochemistry, Istanbul, Turkey

Background Iron deficiency during the fetal and neonatal (perinatal) period can result in dysfunction of multiple organ systems, some of which might not recover despite iron rehabilitation. The aim of the study was to assess whether infants born to mothers with gestational diabetes (GDMs) and large for gestational age (LGA) infants are at higher risk for iron-deficiency compared to matched healthy term controls.

Methods Infants born in Marmara University Hospital were enrolled. Infants of GDMs were assigned as group1 (n:22), LGA infants as group2 (n:17) and the control group was assigned as group3 (n:72). Blood samples for complete blood cell count, ferritin and serum transferrin receptor (sTfR) levels were obtained from cord blood. Blood hemoglobin, ferritin and sTfR levels were compared between the groups.

Results Median head circumference, height and weight of infants born to GDMs and LGA infants were significantly higher than that of the control group. When infants of GDMs and LGA infants were compared, bodyweight and height were significantly higher in the LGA group. No significant differences were found in head circumference values between the groups. In groups 1, 2, 3 cord blood median hemoglobin, ferritin and sTfR levels were 17.2; 15.4; 16.0 (gr/dl) (p=0.05), 179.7; 252.3; 225.7 (µg/L) (p=0.456) and 5.22; 4.34; 3.42 (mg/L) (p=0.008) respectively. Hemoglobin levels were higher in the infants of GDMs but this reached only borderline significance (p=0.05). Serum ferritin levels were found to be lower and sTfR levels were found to be higher in the infants of GDMs. The median serum transferrin receptor concentration in the infants of GDMs was significantly higher than that of both the control group and the LGA group. However, the differences between the groups in terms of ferritin were not statistically significant.

Conclusions Increased sTfR reflects tissue iron deficiency in children. Increased sTfR levels in infants of GDMs may indicate that they have a risk for iron deficiency. Optimal follow up is warranted in infants of GDMs to prevent perinatal iron deficiency and its consequences.

752 THE EFFECT OF CHEMOTHERAPY OF NEPHROBLASTOMA A TREATMENT

doi:10.1136/archdischild-2012-302724.0752