

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  $3.3 \pm 1.8$ . 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

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**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

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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/mm<sup>3</sup>, 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?

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**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

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**Introduction** Nephroblastoma is a kidney cancer which usually appears in children and rarely in adults.

**Aim** The aim of the paper was the presentation of Tu Wilms cases in the Department of Hemato-Oncology at December 2008 till March 2012.

**Materials and Methods** In the paper are included 17 cases, 7 males (41.17%) and 10 females (58.82%), that are present in our department. They are of different sexes and ages. Meanwhile, regarding to tumor lateralization, 11 cases have been on the right kidney or (64.70%), 5 cases or (29.41%) were located in the left kidney, and 1 case or (5.88%) was on both kidneys. The examination is done based on history, physical examination, laboratory analysis, radiologic (X-ray, ECHO of abdomen and CT of torax and abdomen) and biopsy.

**Results** The preoperative chemotherapy is applied into 12 cases (70.50%) and in 16 cases (94.11%) is applied the treatment of pre and postoperative. According to SIOP 2001 protocol, one of them was accompanied abroad after the treatment. During the preoperative treatment the tumors mass is reduced from 25%–35%. Two of these cases are in treatment for relaps, one of them refused the operation after the preoperative treatment.

**Conclusion** Based on the data of this research, we conclude that the by diagnosing in the beginning of the stage, preoperative, a good surgical intervention and the postoperative treatment, has provided very good results and increases the longevity of these patients.

#### 753 THE ASSOCIATION OF ZINC DEFICIENCY WITH IRON DEFICIENCY

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**Aim** The aim of this study is to determine whether iron deficiency is associated with zinc deficiency.

**Methods** Ninety-eight patients with ID and/or IDA and 100 healthy controls who were examined at Cerrahpasa Medical Faculty, Pediatric and Child Health Department outpatient clinic were included prospectively in this study. Blood samples were collected from cases and controls for complete blood count, iron, TIBC, ferritin and zinc levels. The association between zinc levels and hematological and biochemical parameters were examined.

**Results** There was significant difference ( $p < 0.05$ ) between zinc levels of the cases and controls, serum zinc levels were lower in cases compared to controls. Zinc deficiency was more frequent in children with iron deficiency and/or anemia (9.2%) than those without iron deficiency (1%). In cases, no significant difference was found ( $p > 0.05$ ) between zinc levels in relation to the absence or presence of anemia. There was no correlation between zinc levels and Hb, Htc, MCV, ferritin or TIBC ( $p > 0.05$ ). However there was a positive correlation between zinc levels and iron and TSI. In the control group, there was no statistical relation between zinc levels and Hb, Htc, MCV, iron, TIBC, TSI and ferritin levels ( $p > 0.05$ ).

**Conclusion** In our study, we detected significant lower zinc levels in children with iron deficiency before the onset of anemia. Therefore, we propose that the use of preparations containing both iron and zinc might be more effective in improvement of clinical signs of iron and zinc deficiency.

#### 754 IMMUNOLOGIC EVALUATION IN PATIENTS WITH $\beta$ -THALASSEMIA MAJOR

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**Background** Several studies demonstrated some alterations in immune system of  $\beta$ -thalassemia major patients. The aim of this study was to assess the immunologic markers of these patients in comparison with control group.

**Method** Immunologic markers including CD8, CD4 [T-lymphocyte], CD19 [B-lymphocyte], and CD56 [NK cell] were assessed in thirty patients with  $\beta$ -thalassemia major (18 male and 12 female; under 18 years) and similar age and sex matched healthy controls. All patients had no infectious, malignant or chronic diseases. Complete blood count, and serum ferritin and iron also were measured. Statistical analysis performed by SPSS (v.15) software.

**Results** We did not found any abnormality in cellular and humoral system. However, mean CD56 level in thalassemia group were significantly lower than control group ( $6.54 \pm 2.87\%$  vs.  $9.13 \pm 4.01\%$ ;  $p = 0.006$ ). Mean CD4 in thalassemia patients with splenectomy was significantly lower than patients without splenectomy ( $31.8 \pm 6.55\%$  vs.  $40.3 \pm 9.2\%$ ;  $p = 0.02$ ).

**Conclusion** NK cell marker in the patients with  $\beta$ -thalassemia major is lower than healthy individuals, that may be responsible for defects in innate immune system.

#### 755 DOES PARTIAL EXCHANGE TRANSFUSION PREVENT NEURODEVELOPMENTAL DISABILITY IN INFANTS WITH POLYCYTHEMIA?

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Partial exchange transfusion (PET) is traditionally suggested as treatment for neonates diagnosed with polycythemia. Nevertheless, late neurodevelopmental outcome of this treatment is controversial. We aimed to compare the neurodevelopmental outcomes of the children who had history of neonatal polycythemia that treated with PET or not at 2 years old. Neonates who were hospitalized due to polycythemia between April 2009 and September 2009 included the study. Mental and psychomotor evaluations were performed using the Bayley Scales of Infant and Toddler Development Second Edition (BSID-II). The examiner was blinded to both group. 13 infants treated with PET and 21 not treated with PET were included the study. There were no statistically difference in respect to demographic and prenatal characteristics between groups. There were no statistically significant differences in immediate complication rates between groups, except indirect hyperbilirubinemia. Mental and psychomotor scores of the both groups were not statistically different. When the infants grouped into according to psychomotor scores ( $> 85$  and  $\leq 85$ ) more infants who were not treated with PET had psychomotor scores  $\leq 85$  compared to the other group ( $p = 0.03$ ). More infants who were not treated with PET had psychomotor scores between 70 and 84. This means group who not treated with PET had more infants having mild psychomotor disability compared to other group. The main issue about the polycythemia treatment is late neurodevelopmental outcome. In our study, treatment with PET may protect the neonates with polycythemia from the late psychomotor disability.

#### 756 THE EFFECTIVENESS OF RDW-CV IN DIFFERENTIATING MICROCYTIC ANEMIA

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