P-01

ASSOCIATION BETWEEN COPPER AND CARBOHYDRATE ANTIGEN 19-9

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Introduction: Copper is essential for living organisms, in many metabolic enzymes it acts as a cofactor. Cancer progression is associated with increased cellular copper concentrations. Carbohydrate antigen 19-9 is a serum marker and it is used for diagnosis and management of patients with pancreatic cancer. In this study we just aim to investagate the association between copper and Carbohydrate antigen 19-9 in all kind of aplicants.
Material and Methods: Between January 1, 2016 and December 31, 2016, patients who had both copper and Carbohydrate antigen 19-9 parameters were screened retrospectively. These were the patients who were admitted to Ankara Atatürk Training and Research Hospital. IBM SPSS Statistics 23.0 statistical program was used for the analysis.
Results: A statistically correlation wasn't observed between copper levels and Carbohydrate antigen 19-9 levels. (p = 0.544, r = - 0.60)
Discussion: In some studies it was showed that cancer cells have increased copper levels. Carbohydrate antigen 19-9 also increases in some kind of cancer disease so in this study we were expecting a positive correlation between these two groups. We did not observe a positve corelation. We belive more studies must bu done about this subject.
Key Words: Copper, Carbohydrate Antigen 19-9

P-02

ASSOCIATION BETWEEN HIGH DENSITY LIPOPROTEIN (HDL) AND THIOL HOMEOSTASIS

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Introduction: High Density Lipipoprotein particles have an important role of antioxidant, anti-inflammatory, and antiapoptotic processes. Thiols are composed of a hydrogen and sulphur atom connected to a carbon atom. They play role for protecting tissues from reactive oxygen radicals. In this study we aim to invastigate the association between HDL and Thiol Homeostasis.
Material and Methods: Between February 1, 2017 and April 5, 2017, patients who had both serum High Density Lipipoprotein and native thiol parameters were screened retrospectively for patients who were admitted to Ankara Atatürk Training and Research Hospital. IBM SPSS Statistics 23.0 statistical program was used for the analysis.
Results: In our study a positive correlation was observed between native thiol levels and High Density Lipipoprotein levels. (r = 0.273, p < 0.0001)
Discussion: As expected the positive correlation occurred between serum High Density Lipipoprotein levels and native thiol levels. Oxidized low density lipoprotein increases in cardiovascular diseases. High density lipoprotein can protect low density lipoprotein from oxidation. Apoptosis triggered in foam cells. High Density Lipipoprotein also inhibits this mechanism by its antioxidant activity. Thiols have protective mechanisms against oxidative cell damage. Thiols (RSH) can undergo oxidation reaction via oxidants. As both thiols and High Density Lipipoprotein have antioxidant activity a significant positive correlation occurred.
Key Words: High Density Lipipoprotein, Thiol Homeostasis, Antioxidant

P-03

ASSOCIATION BETWEEN INSULIN RESISTANCE AND THIOL HOMEOSTASIS

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Introduction: Insulin is a hormone secreted from the beta cells of the pancreas. Insulin resistance is defined as inefficient glucose uptake and utilization in peripheral tissues in response to insulin stimulation. Thiols are composed of a hydrogen and sulphur atom connected to a carbon atom. They play role for protecting tissues from reactive oxygen radicals. Some studies showed that reactive oxygen radicals and oxidative stress increase in insulin rezistance. In this project, we aimed to investigate the assaciation between thiol homeostasis and insulin resistance.
Material and Methods: Between January 1, 2017 and March 31, 2017, patients with fasting glucose, native thiol, fasting insulin parameters were screened retrospectively for patients who were admitted to our hospital. While patients with a HOMA index of less than 2.5 were not considered as having insulin resistance, Those above 2.5 were assessed as having insulin resistance. IBM SPSS Statistics 23.0 statistical program was used for the analysis.
Results: In our study, the native thiol average of healthy subjects was 430.31 umol/L band the native thiol average of patients with insulin resistance was 450.96 umol/L. A statistically significant difference was observed between these two groups (p = 0.025)
Discussion: When insulin resistance occurs, response to insulin decreases. Reactive oxygen radicals and oxidative stress rises in insulin resistance. But in our study we couldn't find this result. So we think more studies must be done about this subject.
Key Words: Insulin Rezistance, Thiol Homeostasis

P-04

ASSOCIATION BETWEEN SELENIUM AND CARBOHYDRATE ANTIGEN 19-9

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Introduction: Cancer cells are shown to have increased reactive oxygen spices' levels in comparison to their normal counterparts. Carbohydrate antigen 19-9 is a serum marker and İt is used for diagnosis and management of patients with pancreatic cancer. As Selenium is an antioxidant and oxizidation increases in cancer disease; in this study we aim to investagate the association between Selenium levels and Carbohydrate Antigen 19-9 levels in all kind of aplicants.
Material and Methods: Between January 1, 2016 and December 31, 2016, patients who had both Selenium and Carbohydrate Antigen 19-9 parameters were screened retrospectively for patients who were admitted to Ankara Atatürk Training and Research Hospital. IBM SPSS Statistics 23.0 statistical program was used for the analysis.
Results: A statistically correlation wasn't observed between selenium levels and Carbohydrate antigen 19-9 levels. (r =- 0.67, p = 0.515)
Discussion: In some studies it was showed that cancer cells have increased reactive oxygen levels. We were expecting a negative correlation between these two parameters, because the antioxidant function of Selenium. Carbohydrate Antigen 19-9 has high positive predictive value as a stand-alone marker. We think more studies must bu done about this subject.
Key Words: Selenium, Carbohydrate Antigen 19-9

P-05

ASSOCIATION BETWEEN COPPER AND CARBOHYDRATE ANTIGEN 72-4

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Introduction: Copper is essential for living organisms, in many metabolic enzymes it acts as a cofactor. Cancer progression is associated with increased cellular copper concentrations. Carbohydrate antigen 72-4 is a serum marker and it is used for diagnosis and management of patients with gastric, overian and colorectal cancer. In this study we just aim to investagate the association between copper and Carbohydrate antigen 72-4 in all kind of aplicants.
Material and Methods: Between January 1, 2016 and December 31, 2016, patients who had both copper and Carbohydrate antigen 72-4 parameters were screened retrospectively. These were the patients who were admitted to Ankara Atatürk Training and Research Hospital. IBM SPSS Statistics 23.0 statistical program was used ort he analysis.
Results: A statistically correlation wasn't observed between Carbohydrate antigen 72-4 levels and copper levels. (r = 0.10, p = 0.907)
Discussion: In some studies it was showed that cancer cells have increased copper levels. Carbohydrate antigen 72-4 also increases in some kind of cancer disease so in this study we were expecting a positive correlation between these two groups. We think more studies must bu done about this subject.
Key Words: Copper, Carbohydrate Antigen 72-4

P-06

CLINICOPATHOLOGICAL FEATURES OF PATIENTS WHO HAVE COLONOSCOPY DUE TO IRON DEFICIENCY ANEMIA

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Introduction: Colorectal cancer (CRC) is a major health problem because it generally carries a poor prognosis. CRC is an important cause of iron deficiency anemia (IDA) in men and in postmenopausal women. In our study, we investigated the clinicopathologic features of patients with colonoscopies due to IDA.To determine the prevalence of CRC in colonoscopies due to IDA and to investigate the relation between age and gender.
Material and Methods: We reviewed the records of 274 patients who had colonoscopy for investigation of IDA in the Colonoscopy Unit of the Atatürk Training and Research Hospital for 1 year (2016).
Results: No pathological findings were observed in 157 (57.3%) of 274 patients whose records were reviewed. 13 (4.7%) patients had cancer-mass. 5 (1.8%) of these patients are female and 8 (2.9%) are male. The cancer patients' mean age is 63. (Females' 70; Males' 58.6).
Discussion: Despite the absence of any pathology in the majority of colonoscopies due to IDA, clinical guidelines suggest colonoscopy for patients with IDA in men of any age and postmenopausal women. According to our results, 1 out of every 21 patients undergoing colonoscopy because of IDA have colorectal cancer.
Key Words: Iron Deficiency Anemia, Colorectal Cancer, Colon Polyp, Age, Gender, Colonoscopy

P-07

COMPARISON OF URINARY SEDIMENT ANALYSIS RESULTS OF AUTOMATIC URINARY ANALYZER AND MICROSCOPIC EXAMINATION METHODS

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Introduction: Urine analysis is one of the most frequently requested diagnostic tests in clinical practice because it gives important information about renal function. For the analysis of urine sediment, manual microscopy and many automatic urine analyzers are used. Manual microscopy requires intensive work and takes time. Accuracy and precision of the tests have been increased with automatic urine analyzers which make quantitative measurements. Our aim in this study is to investigate whether urine analysis results obtained by urine microscopy and automatic urine analyzer methods are different.
Material and Methods: Freshly collected urine samples from 30 patients who came to Ankara Ataturk Training and Research Hospital Medical Laboratory for analysis were centrifuged after SYSMEX UF 1000 i automatic urine analyzer was tested and analysis was completed, and a drop from the bottom sediment examined microscopically. Autoanalyzer and microscopy data of the samples were transferred to Microsoft Excel spreadsheet and analyzed by SPSS software.
Results: Significant correlation was found between erythrocyte, leukocyte, squamous epithelium, casts, crystal and yeast cells between the two methods. (r = 0.970, p <0.001, r = 0.985, p <0.001; r = 0.982, p <0.001; r = 0.922, p <0.01, r = 1, p <0.001, r = 1, p <0.001)
Discussion: Two urine analysis methods showed good correlation with urine sediment examination. This allows quick and accurate results in practice with analyzers. However, there is still a need for experienced laboratory technician to distinguish some shaped elements such as casts.
Key Words: Urine Sediment, Automatic Urine Analyzer, Urine Microscopy

P-08

CORRELATION OF CARDIAC MARKERS AND THIOL-DISULFIDE HOMEOSTASIS

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Introduction: Troponin (hsTnT), myoglobin and creatine kinase-myocardial isoenzyme (CK-MB) are most important and widely used tests to detect myocardial ischemia. With the onset of ischemia or cardiac damage radical amount begins to increase in tissues. Thiols which are the sulphydryl groups (-SH) of the serum albumin, play an important role in removal of radicals. Thiol-disulfide homeostasis is a recently used test to show oxidative stress. Aim of this study is to assess the correlation between native-thiol and cardiac markers.
Material and Methods: Patients (n=111) who applied to Ankara Ataturk Training and Research Hospital from 10.10.2016-04.23.2017 were enrolled in the study. Correlation of native-thiol with hsTnT, CK-MB and myoglobin values were analysed by using SPSS 22.0.
Results: Correlations of hsTnT with native-thiol and albumin were significant (r= -0.554; r= -0.630, p<0.001 respectively). Significant high positive correlations were seen between myoglobin and native-thiol (r= 0.539, p<0.001) and between myoglobin and albumin (r= 0.574, p<0.001). Correlations of CK-MB with both native-thiol and albumin were negative and significant (r= -0.308, p=0.001; r= -0.281, p=0.002).
Discussion: According to our findings there is a significant negative correlation of native-thiol with both hsTnT and CK-MB. In myocardial damage hsTnT and CK-MB levels increase and due to the ischemia, radical levels elevate in blood. Native-thiol level decrease since reduction of the radicals. In contrast to CK-MB and hsTnT, myoglobin has a positive correlation with native-thiol. As stated in recent studies myoglobin has a negative relationship with both troponin and CK-MB. Our data suggest that positive correlation between myoglobin and native-thiol is associated due to negative correlation of myoglobin either with troponin and CK-MB.
Key Words: Thiol-Disulfide Homeostasis, Hstnt, Ck-MB, Myoglobin, Oxidative Stress

P-09

CORRELATION OF ISCHEMIA-MODIFIED ALBUMIN AND MICROALBUMINURIA

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Introduction: Microalbuminuria is the daily excretion of 30-300 mg of albumin. The presence of albumin in the urine is generally considered abnormal even in trace amounts, although some healthy individuals exhibit albuminuria following intense exercise. Ischemia-modified albumin (IMA) is a form of albumin in which the first two amino-acids (Asp-Ala) at N-terminus has cleaved due to ischemia. Goal of this study is to find a relationship between serum IMA and 24-hour urine microalbumin.
Material and Methods: 45 patients were enrolled in the study who applied to Ankara Ataturk Training and Research Hospital from February 2017 to April 2017. Correlation of IMA and 24-hour urine microalbumin values were investigated by using SPSS 22.0.
Results: 24-hour urine microalbumin levels were significantly correlated with IMA (r= 0.462, p=0.001). Also significant high negative correlation was found between 24-hour urine microalbumin and serum albumin (r=-0.716, p<0.001).
Discussion: As the level of albumin excretion in urine increases, the serum albumin levels decrease. This relationship reveals the significant high negative correlation between microalbuminuria and albumin. According to some studies, elevation of oxidative stress in body results increase in IMA concentration. Microalbuminuria indicates an injury in kidneys which are responsible from excreting waste and oxidant products by urine. Deterioration of this mechanism cause increased oxidative stress in body and this state may lead to elevated IMA levels. Moreover negative correlation of IMA and microalbuminuria can be explained by the inverse correlation between IMA and albumin.
Key Words: Ischemia-Modified Albumin, Microalbuminuria, Proteinuria, Protein

P-10

CORRELATION OF ISCHEMIA-MODIFIED ALBUMIN AND THYROID FUNCTION TESTS

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Introduction: Thyroid function tests are used to assess activity of hypothalamic-pituitary-thyroid axis. Routine tests include triiodothyronine (T_3), thyroxine (T_4) and thyroid stimulating hormone (TSH). T_3 and T_4 hormones are carried in body by thyroid-binding globulin (TBG), albumin and thyretin. Ischemia-modified albumin (IMA) is a form of albumin in which the N-terminal amino-acids have been modified by ischemia. Aim of this study is to investigate the relation of IMA with thyroid function tests.
Material and Methods: Patients (n=548) who applied to Ankara Ataturk Training and Research Hospital between 10.02.016-03.23.2017 were enrolled in the study. Correlation of IMA with T_3, T_4 and TSH values were investigated by using SPSS 22.0.
Results: Significant negative correlations were found between T_3 and IMA (r= -0.354, p<0.001). Correlation of T_3 with albumin was positive (r=0.565, p<0.001). There were no correlations between T_4 and IMA (r= -0.029, p=0.487), also no correlations had found between T_4 and albumin (r=0.015, p=0.733). TSH and IMA correlation was significant (r= -0.157, p<0.001) and correlation of TSH with albumin was positive (r=0.243, p<0.001).
Discussion: Significant positive correlation between T_3 and albumin is a result of physiologic mechanism. Because 55% of the free T_3 in blood is transported to the target tissues by albumin. The higher amount of T3 secrete, the more albumin binding observed. Also, significant negative correlation between T3 and IMA is caused from the inverse correlation of albumin with IMA. But, no significant correlation had found between neither T4 and IMA nor T4 and albumin. Transport of 70% of T_4 with TBG may be the reason for why there is no correlation between T4 and albumin.
Key Words: IMA, TSH, T_3, T_4, Albumin

P-11

EVALUATION OF BLOOD GAS REJECTION CRITERIONS

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Introduction: Clinical follow-up of respiratory and metabolic diseases usually depends on rapid and accurate measurement of blood gases. Measurement of blood gases plays an important role in the identification of acid-base balance disorders. The use of modern instruments for measuring blood gases gives simple, fast and reliable results. However, there are some sample rejection reasons that will affect these results in the negative. In this study blood gas rejection criteria in our hospital were evaluated.
Material and Methods: Blood gas analysis was taken on standard blood gas injectors with heparin content. Samples were examined with ABL 800 device. All reasons for rejection of the blood gas between 01.03.2016 and 02.02.2017 were recorded. The collected data were evaluated in the SPSS statistical program.
Results: 2429 rejections were made during the specified period. The reasons of rejections and number are respectively; hemolysis; 8 (0.33%), clotted; 2245 (92.42%), insufficient sample; 128 (5.27%), wrong operation; 1 (0.04%), standing sample; 3 (0.12%), wrong tube container; 12 (0.49%), the other 12 (0.49%), improper container; 1 (0.04%), improper transport; 8 (0.33%), wrong patient; 6 (0.25%), incorrectly sampled sample; 4 (0.16%), lipemia; 1 (0.04%).
Discussion: Blood gas rejection rates are highest with 92.42% clotted samples. With 92.42%, the coarse samples are the highest in blood gas rejection rates. Importance should be attached to personnel training in this regard.
Key Words: Blood Gas, Rejection Criteria, Lipemia, Clotted Sample

P-12

EVALUATION OF ISCHEMIA MODIFIED ALBUMIN LEVELS IN HYPERGLYCEMIC PATIENTS

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Introduction: N-terminal of albumin is sensitive to free oxygen radicals and modified in oxidative stress. This form of albumin is called as ischemia modified albumin (IMA). The association of Type 2 Diabetes Mellitus (DM) with oxidative stress is known from previous studies. Our aim in this study is to investigate IMA levels in patients with type 2 DM.
Material and Methods: The results of the HbA1c, glucose and IMA test samples which were analyzed in March 2017 in Ankara Atatürk Training and Research Hospital, were obtained from the laboratory information system. A control group with age and gender distribution similar to the patient group was identified.
Results: In the control group (n = 37) with median age 58 years [interquartile range (IQR) 39.5-73] 20 women, 17 men are included; in the patient group (n = 30) 17 women and 13 men are included, median age 62 years [IQR 48-68]. Median of IMA/albumin values is founded 17.5 [IQR 16.8-18.4] in the control group and median of IMA/albumin values is 18.6 [IQR 17.5-20.6] in the patient. There was a significant difference in IMA/albumin between the two groups (p=0.03). There is a weak correlation between HbA1c and IMA/albumin levels in the patient group (r=0.22, p=0.06).
Discussion: In Type 2 DM patients, IMA/albumin ratio increase significantly. It shows that in Type 2 DM patients oxidative stress modify the proteins which participates in antioxidant mechanism and IMA might be helpful in the evaluation of type 2 DM.
Key Words: Ischemia Modified Albumin, Type 2 DM, Free Oxygen Radicals, Oxidative Stress

P-13

EVALUATION OF LEVELS OF ISCHEMIA MODIFIED ALBUMIN IN PATIENTS WITH HIGH BNP LEVELS

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Introduction: Ischemia modified albumin (IMA) is a new test used as a marker for the early detection of ischemia caused by different pathologies. Oxidative stress cause an increase in IMA levels. Pathologic conditions which cause an increase in BNP (Brain Natriuretic Peptide) levels are also associated with oxidative stress. The aim of this study is to analyze the relation between levels of BNP and IMA.
Material and Methods: Pro-BNP and IMA test results between December 2016 and March 2017 are used. Patients with pro-BNP levels above 285 pg/ml are determined as the patient group. A control group with the similar age and gender is enrolled.
Results: The control and patient groups are formed by 13 female, 17 male (n=30) with median age 66.5 years [interquartile range (IQR)62-67.25]; and 17 female, 13 male (n=30) with median age 70 years [IQR 60-79.75], respectively. In the control group, median IMA/albumin ratio is 17.5 [IQR 15.9-18.8], median pro BNP is 64 pg /mL [IQR 30.2-121.5] whereas in the patient group median IMA /albumin ratio is 23.9 [IQR 19.2-31.8] and median pro BNP is 2148.5 pg/ml [IQR 637.5-4636.7]. There is a significant difference between IMA/albumin levels of the two groups. (p<0.001) There is a correlation between pro-BNP and IMA/albumin levels in the patient group. (r=0.68, p<0.001)
Discussion: IMA/albumin ratio is higher in patient group. A significant correlation between high BNP levels and IMA/albumin is confirmed in patient group. The high correlation between IMA and BNP indicates that IMA increases in conditions where BNP levels are also increase such as vascular, pulmonary and cardiac events.
Key Words: BNP, Ischemia-Modified Albumin, Cardiovasculer Disease, Oxidative Stress

P-14

TOP TEN LABORATORY TESTS WHICH WERE MADE THE MOST REQUEST IN 2016 AT ANKARA ATATURK TRAINING AND RESEARCH HOSPITAL

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Introduction: The medical laboratories play an important role in diagnosis, treatment and follow-up of patients. Our aim in this project is evaluating top ten laboratory tests which were wanted from the patients at Ankara Atatürk Training and Research Hospital in 2016.
Material and Methods: Laboratory tests conducted at all outpatient clinics of our hospital for screening from January 1, 2016 to December 31, 2016 were screened retrospectively. The obtained data was transferred to the Excel Program.
Results: 119 different tests were run our hospital in 2016. The total number of tests runed in 2016 was 8.297.724. The maximum testing period was in March. (772.680 units) Minimum testing period was in July (566.149 units) At our hospital, the most wanted first 10 tests in 2016 were as follows 1) Hemogram 438.764 units 2) Creatinine 423.208 units 3) Glucose 397.324 units 4) Urea 391.416 units 5) Alanine aminotransferase (ALT) 375.813 units 6) Aspartate transaminase (AST) 360.913 units 7) Sodium 321.942 units 8) Potassium 321.455 units 9) Calcium (Ca) 279.354 units 10) Albumin 233.879 units.
Discussion: In this study we found that the most wanted test by the clinicians at our hospital during January 1, 2016 to December 31 ,2016 was hemogram. Hemogram is in relationship with lots of diseases such as anemia and infection.
Key Words: Laboratory Tests

P-15

EVALUATION OF OGTT THRESHOLD USED IN DIAGNOSIS OF GESTATIONAL DIABETES

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Introduction: Gestational diabetes (GDM) is known as pregnancy diabetes. A two-stage test is used in our hospital for the investigation of GDM. The first step is a 50 g glucose screening test. If serum glucose level is ≥140 mg/dl after 1 hour, we doubt diabetes. And the second step, 100 g glucose scan test. In this study, we were aimed to investigate that, what kind of changes might occur if the threshold value of 140 mg/dl is taken to 130 mg/dl in the GDM screening test performed in our hospital.
Material and Methods: Patients screened for GDM between 01.01.2016 and 31.12.2016 were screened from the laboratory information system. GDM results of 784 patients were recorded. The mean age of the patients was 29.47(age; 17-45).
Results: 136 results were ≥140 mg/dl and in these patients the second stage was passed. 218 results ≥130 mg/dl and 82 results were found to be 130-140 mg/dl.
Discussion: If the limit was accepted as 140 mg/dl at first stage, 17.35% of the patients were found to be at risk. If the limit was accepted as 130 mg/dl, 27.80% of the pregnancies would be at risk. There is a high difference between the two limits. This may cause some GDM patients to be skipped. Therefore, lowering the limit to 130 mg/dL can be discussed.
Key Words: Gestational Diabetes, Glucose, Pregnant

P-16

EVALUATION OF THE GAMMA GLUTAMYL TRANSFERASE LEVELS IN TYPE 2 DIABETES MELLITUS

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Introduction: Oxidative stress plays an important role in the pathogenesis of early and late complications of diabetes mellitus (DM). Recent studies have shown that serum GGT levels are associated with oxidative stress and subclinical low-grade chronic inflammation. Leukocyte count is widely considered a marker of inflammation. Our aim in our study is to investigate GGT levels and leukocyte count in Type 2 DM patients.
Material and Methods: The test results of HbA1c, glucose, fasting blood glucose, whole blood count and GGT of patients which analyzed in Ankara Ataturk Training and Research Hospital in March 2017 is taken from labarotary information system. A patient group and age-gender matched control group were included.
Results: The control group (n=32) consist of 19 females, 13 males (median age 57.5 years; Interquartile Range -IQR 51-66.5); the patient group (n=30) consist of 18 women and 12 men (median age 64.5 years; IQR 57.7-70.2). In the control group, median leukocyte count is 6.73 K/uL (IQR 5.6-7.4), median GGT is 17 U/L (IQR 15-22); In the patient group, median leukocyte count is 7.65 K/uL (IQR 6.3-8.5) median GGT is 24 U/L (IQR 15-34.2). There was a significant difference between the GGT and leukocyte levels among the two groups (p=0.02, p=0.036, respectively). There was a correlation between HbA1c and GGT (r=0.31, p=0.013); HbA1c and leukocyte (r=0.31, p=0.014) and leukocyte and GGT levels (r=0.40, p<0.001).
Discussion: GGT and leukocyte levels were found to be significantly higher in Type 2 DM patients. GGT and leukocyte levels may be showing the inflammation and oxidation status of the patients in Type 2 DM.
Key Words: Diabetes Mellitus, Ggt, Oxidative Stres, Leukocyte, Inflammation

P-17

INVESTIGATION OF PLASMA SIGNAL TRANSDUCER AND ACTIVATOR OF TRANSCRIPTION 3 (STAT3) AND BCL-2 ASSOCIATED X PROTEIN (BAX) LEVELS IN RATS FED HIGH FAT AND HIGH SUCROSE DIET

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Introduction: Consumption of a diet high in saturated fats and sucrose is an important factor in the increasing occurrence of these metabolic disorders. Signal transducer and activator of transcription 3 (STAT3) and Bcl-2 associated X protein (Bax) are multifunctional protein that are important for immune responses, cell survival, apoptosis, and proliferation. However, it is unknown about the relationship between the STAT3/ Bax and high sucrose/ high fat diet
Material and Methods: Konya Necmettin Erbakan University, KONÜDAM Experimental Medicine Research and Application Center which was available from 28 adult Wistar albino postnatal (8-12 weeks) male rats fed, accompanied by a high-fat, high-sucrose or standard chow. It was divided into several groups, in its blood (plasma) STAT3 and Bax levels were studied with the ELISA method.
Results: Plasma STAT levels of fed with standard feed, fed with high sucrose diet, fed with high fat diet and fed with high fat and high sucrose diet were found as (X + SD) 0.25 ± 0.007, 0.26 ± 0.02, 0.27 ± 0.02 and 0.29 ± 0.04 pg/ml respectively. Plasma Bax levels of fed with standard feed, fed with high sucrose diet, fed with high fat diet and fed with high fat and high sucrose diet were found as (X + SD) 0.35 ± 0.02, 0.34 ± 0.02, 0.35 ± 0.01 and 0.33 ± 0.01 ng/ml respectively. There were no significant differences between plasma STAT3/ Bax levels of the groups.
Discussion: Our findings show that there was no relationship between the STAT3/ Bax and high sucrose/ high fat diet.
Key Words: High Fat Diet, High Sucrose Diet, STAT3, Bax

P-18

INVESTIGATION OF THE RELATION BETWEEN HYPERLIPIDEMIA AND SERUM GAMMA GLUTAMYL TRANSFERASE LEVELS

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Introduction: There is a relation between cardiovascular diseases and hyperlipidemia. GGT levels are associated with inflammation, oxidative stress and it is shown that increased serum GGT will be a predictor of cardiovascular disease in recent studies. Leukocyte count is also considered a marker of inflammation. The aim is to evaluate leukocyte and GGT levels association with hyperlipidemia.
Material and Methods: The results of leukocyte, GGT, lipid profiles of patients analyzed in Ankara Ataturk Training and Research Hospital in March 2017 is taken from laboratory information system. A patient group and age-gender matched control group were enrolled.
Results: The control group (n=36) consist of 21 female,15 male; median age is 42 years [Interquartile range(IQR) 28-59] and hiperlipidemic patients (n=32) consist of 23 female, 9 male; mean age is 51 years (IQR 40-61.5). In control group median of total cholesterol (TC) is 168 mg/dl (IQR 154.2-180.7); TC median in patient group is 220 mg/dl (IQR 213-257.5). Median GGT and leukocyte levels are 14 U/L (IQR 11-21), 6.7 K/uL (IQR 5.8- 7.5) in the control group and 19 U/L (14-27), 7.7 K/uL (5.7-8.7) in the patient group, respectively. GGT levels were significantly higher in the hiperlipidemic group (p=0.014). GGT is positively correlated with TG (r=0.42, p=0.001) and negatively with HDL levels (r=-0.39, p<0.001).
Discussion: Higher GGT levels, positive correlation of GGT with TG and negative correlation with HDL suggest that GGT levels may show the inflammation and oxidation status of the patients with hyperlipidemia.
Key Words: Hyperlipidemia, GGT, Leukocyte, Inflammation, Oxidative stress

P-19

INVESTIGATION OF THE CORRELATION BETWEEN PROTEINURIA AND THIOL/DISULFIDE HOMEOSTASIS

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Introduction: Normal urinary protein excretion in healthy individual is <150 mg/24 hour or <30 mg/day. Microalbuminuria is the excretion of 30-300 mg of albumin daily or 20-200 µg of albumin per minute. Serum albumin levels highly associate with serum thiols which are protective compounds of the cells and tissues against radicals' harmful effects. Main objective of this study is to search the correlation between microalbuminuria and thiol-disulfide homeostasis.
Material and Methods: Patients (n=63) who applied to Ankara Ataturk Training and Research Hospital between 01.01.2016 - 04.18.2017 were enrolled in the study. Correlation of 24-hour urine microalbumin levels with serum albumin, native thiol and total thiol values were analyzed by using SPSS 22.0.
Results: Significant negative correlations were found between 24-hour urine microalbumin and native and total thiol values (r= -0.658, r= -0.654; p<0.001 respectively). The correlation of 24-hour urine microalbumin and albumin was (r= -0.69, p<0.001).
Discussion: We have found significant high negative correlation between both microalbuminuria - native thiol and microalbuminuria - albumin. Thiols are the sulphydryl groups (-SH) of albumin therefore their concentrations are affected by serum albumin levels. Body mainly loses serum albumin during proteinuria. This evidence explains the negative correlation of microalbuminuria with both native thiol and albumin.
Key Words: Thiol/Disulfide Homeostasis, Proteinuria, Microalbuminuria, 24-Hour Urine

P-20

MISSING INTRAUTERINE DEVICE

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Introduction: The Intrauterine Device (IUD) is a highly effective contraceptive method. An IUD is a small, T shaped plastic devices that is wrapped in copper or contains hormones. The IUD is inserted into patients uterus by physicians.
Material And Methods: This methods have some complications like menstrual problems, infection risks, ectopic pregnancy, perforation and expulsion. In this case, our patient applied to complain about vaginal discharge. When the patient was evaluated, hyperechogenic foreign material was observed in endometrial cavity. Patient has a history about removing of IUD in other health center two weeks ago.
Result: Therefore, this material is considered as a part of IUD that was broken off during removing. We chose this case presentation because this complication has very low frequency among the other complications.
Discussion: Every physicians should contol in term of integrity of IUD.
Key Words: Intrauterine Device, Uterus, Contraceptive Methods

P-21

MONTHLY CHANGES IN VITAMIN D LEVELS

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Introduction: Vitamin D is essential for calcium and bone homeostasis. Vitamin D has a dual origin: as nutritional intake of vitamin D is usually low, the main source is photosynthesis in the skin during exposure to UVB irradiation by sunlight. To assess a persons' vitamin D status, 25(OH)D is the metabolite that is measured in serum. People have D_3 form and it synthesized at skin with sunlight effect. In this study, we aimed to investigate the changes of vitamin D concentrations in women and men according to the season for 12 months.
Material and Methods: Between 01.03.2016 and 28.02.2017, 51.227 female (age; 1-102) and 20.070 male (age; 1-98) patients who applied to Atatürk Training and Research Hospital were screened for vitamin D results. 25-OH vitamin D is measured by electrochemiluminescence method. The reference range is 10-80 µg/L.
Results: Mean vitamin D concentrations for male and female by month respectively; January: 20.73 VS 24.21 µg/L, February: 23.63-27.55 µg/L, March: 16.47-19.88 µg/L, April: 19.63-21.97 µg/L, May: 22.82-24.74 µg/L, June: 26.05-26.74 µg/L, July: 25.58-23.53 µg/L, August: 27.40-24.44 µg/L, September: 26.25-24.74 µg/L, October: 22.47-21.29 µg/L, November: 25.00-25.24 µg/L, December: 21.67-23.47 µg/L.
Discussion: Vitamin D concentrations increase from March and in both sexes during the summer months. İncreased levels in January and February is thought to be due to patients taking medication. This shows us that D vitamine synthesis is directly proportional to sunlight.
Key Words: Vitamin D, Sunlight, Electrochemiluminescence

P-22

NEAR STEREOPSIS IS NOT RELATED TO READING SPEED

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Introduction: Medical students spend most of their time studying; therefore, that can affect their eyesight. By performing a simple eye test and calculating the reading speed, we could evaluate the near stereopsis and its relationship with reading speed in medical students. Will the depth perception of people affect their reading speed?
Materials and Methods: The near stereopsis is measured with Randot test (Stereo Optical Co, Inc., Chicago, IL., U.S.A.) and reading speed is recorded by first grade medical students of AYBU Medical Faculty. The information related to refraction, use of eye glasses, any neurological or systemic disease was recorded as well. Students with high refractive errors more than 4 diopters were excluded.
Results: 100 medical students (mean age: 19.7, range: 18-25, 56 female) had a mean reading speed of 249 words per minute (WPM range: 100-577). The stereopsis ranged from 20 to 200 seconds of arc (median: 60, mode: 70). The correlation (r) between stereopsis and reading speed was weak (r =-0.01, p-value (p) = 0.34). There was no difference between students who were ametropic and emmetropic in terms of stereopsis (p = 0.75) and reading speed (p = 0.09).
Discussion: The speed of reading which is a unique human cognitive activity is not related to high binocular functions like stereoacuity and moderate refractive errors.
Key Words: Near Stereopsis, Refractive Errors, Reading Speed

P-23

QUANTITATIVE EEG BETA FREQUENCY RESPONSE IN PATIENTS WITH CHRONIC OCCUPATIONAL EXPOSURE TO MANGANESE

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Introduction: Chronic exposure to Manganese (Mn) by inhalation in workers is associated with neurotoxicological effects including neurobehavioral changes and parkinsonism. Alterations in the electroencephalography (EEG) data may reflect pathological conditions which are caused by toxin agents in the central nervous system (CNS). The aim of this study was to investigate to toxic effects of Mn on the cognitive functions as mediated by frontal lobe through quantitative EEG analyzing.
Material and Methods: Resting state-EEG recordings were taken from 27 patients with chronic occupational exposure to manganese and 16 healty volunteer participants (control group) with a 32 channel EEG recording system. The beta power values were obtained from the EEG recordings with the BESA program. For quantitative EEG analysis, artifact free 45 epochs lasting 2 s each were selected and the beta frequency power values were calculted for frontal lob.
Results: Beta power values of the chronic occupational exposure to manganese patients (9,20 μV^2) decreased compared to control group (16,92 μV^2) in frontal lobe.
Discussion: The major function of the frontal lobe is carring out higher mental processes such as thinking, decision making, and planning. It's a known fact there is a relationship between beta waves and cognitive functions. According to our findings the low beta values (frontal lobe) in patients with chronic occupational exposure to manganese show long term manganese exposure affect the higher mental processes.
Key Words: Exposure To Manganese, EEG, Beta Waves, Cognitive Function

P-24

RELATION BETWEEN ALCOHOL CONSUMPTION AND THIOL DISULPHIDE HOMEOSTASIS

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Introduction: Alcohol is one of the most socially accepted addictive drugs in modern society. In the literature, it is known that reactive oxygen species (ROS) are generated during alcohol metabolism. Thiol-disulphide homeostasis is a new concept that shows oxidative status of the patient. The object of the study is to investigate the relation between alcohol consumption and thiol disulphide homeostasis.
Material and Methods: The alcohol test results, thiol-disulphide levels and liver function tests of patients which were examined in Ankara Ataturk Research and Training Hospital between 2015 and 2017 were taken from laboratory data system.
Results: Our study consists of 30 patient's results (n=30). There is negative weak correlation between alcohol levels and disulphide levels (r=-0.22, p=0.2) and also negative weak correlation with disulphide/native tiyol ratio which shows oxidative stress (r=-0.21, p=0.24) but these are non significant.
Discussion: We did not found significant correlation between alcohol levels and disulfide levels which shows oxidative stress. The characteristics of the alcohol consumption (time, dosage etc.) are not known in this study. It needs further researches to investigate the thiol disulphide homeostasis in chronic alcohol consumption.
Key Words: Alcohol, Oxidative Stress, Thiol Disulphide Homeostasis

P-25

RELATION BETWEEN THIOL AND CARBON DIOXIDE LEVEL

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Introduction: Oxidative stres is caused by an imbalance between production and detoxification of reactive oxygen species (ROS). ROS are able to oxidize all macromolecular constituents of cells such as phospho-lipids of membranes, proteins and DNA. Acidosis resulted from increased carbon dioxide (CO_2) levels can cause production of ROS. Thiols contain sulfhydryl group (–SH) that plays an essential role against ROS at biological pathways. They are important to antioxidant cascade. In this study, it was aimed to investigate the relationship between thiol and CO2 levels.
Material and Method: The CO_2 and thiol levels were screened for the last 5 months period as retrospectively in laboratuary data system of Ataturk Training and Research Hospital. 172 patients were included in this study. The datas were analyzed in IBM SPSS 23.0 version.
Results: Mean values of CO_2 and thiols are 43.38 mmHg and 258.35 µmol/L. The results showed a significant negative correlation (r =-0.266, p <0.0001) between thiol and CO_2 level.
Dıscussıon: The low pH values caused by the increase in CO_2 affect the viability of cells and antioxidant enzyme activities. In our study, it was observed that thiol groups, which are part of the antioxidant system, decrease with increasing CO_2 values.
Key Words: Oxidative Stress, Thiol, Carbon Dioxide

P-26

RELATIONSHIP BETWEEN PSA AND THIOL GROUPS

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Introduction: Thiols are essential and potent anti-oxidant molecules containing a functional sulfhydryl groups are important anti-oxidants and essential molecules protecting organism against the harmful effects of reactive oxygen species. Oxidative modification of proteins may affect a variety of cellular functions, and cause cell damage and death or mutations and carcinogenesis. Increased oxidative stress in prostate cancer patients may cause metabolic disturbance and have a role in the aetiopathogenesis of prostate cancergroup protecting organism against the harmful effects of oxidative stress damage. Prostate-specific antigen (PSA) is widely considered as an important biomarker used for diagnosing prostate cancer. In this study we aim that, investigate the relationship between PSA and thiol groups.
Material and Methods: 255 male patients (age; 29-90) applied to Ankara Ataturk Training and Reserch Hospital between 01.09.2016 and 15.04.2017 were included in this study. Parameters of thiol disulphide homeostasis were measured by colorimetric method on an automatic analyzer. PSA and fPSA were measured by electrochemiluminescence assay. Patients were divided into 3 groups according to PSA result (<4 ng/mL, 4-10 ng/mL, >10 ng/mL). The results were evaluated with Spearman's correlation in SPSS.
Results: There was a weak negative correlation and a significant correlation between native thiol and PSA in only group 3 (r= -580; p= 0.001).
Discussion: There was a weak negative correlation between PSA with Native Thiol. Native Thiol decreases in oxidative stress and PSA increases in prostate cancer. The result shows that oxidative stress has increased as the risk for prostate cancer increases (for group 3).
Key Words: Thiol Disulphide, PSA, Oxidative Stres, Prostate Cancer

P-27

RELATIONSHIP OF LIVER FUNCTION TESTS AND ISCHEMIA-MODIFIED ALBUMIN

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Introduction: Liver is the most complex organ of the gastrointestinal tract and responsible for many functions such as protein synthesis, metabolism of glucose, amino acid and dicarboxylic acid interconversions via transaminases, albumin and coagulation factor protein synthesis, metabolism and transport of bilirubin. Ischemia-modified albumin (IMA) is a form of albumin which has reduced binding capacity to transitional metals at the N-terminal compared to albumin. Ischemia, oxidative stress and acidosis may result in IMA formation. Aim of this study is to investigate the relationship between IMA and liver function tests.
Material and Methods: Patients (n=96) who applied to Ankara Ataturk Training and Research Hospital between 02.15.2016-03.31.2017 were enrolled in the study. Correlation of IMA with ALT (alanine amino transferase), AST (aspartate amino transferase), ALP (Alkaline Phosphatase), GGT (γ-Glutamyl Transferase) and PT (prothrombin time) were investigated by using SPSS 22.0.
Results: Correlation values were as follows: IMA and ALT (r=0.056, p=0.585), IMA and AST (r=0.090, p=0.385), IMA and ALP (r=0.072, p=0.487), IMA and GGT (r= -0.171,p=0.096), IMA and PT(r= 0.245,p=0.017). Significant correlation of albumin with analyzed tests was only found with PT (r= -0.318, p=0.002).
Discussion: Albumin and PT indicate synthesis capacity of liver. In hepatic injury, levels of albumin decrease and PT increase. Negative correlation between albumin and IMA is the reason of positive correlation between PT and IMA. Based on this findings IMA can be used as a marker to show the liver synthesis capacity. ALT and AST are indicators of hepatocyte injury, ALP and GGT are usually related with biliary tract pathologies. The reason for no correlation of these tests with IMA is that they do not show the liver synthesis capacity.
Key Words: ALT, AST, IMA, ALP, GGT, PT

P-28

RELATION BETWEEN ISCHEMIA MODIFIED ALBUMIN AND CARDIOVASCULAR TESTS

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Introduction: Creatine kinase myocardial isoenzyme (CK-MB), myoglobin and high sensitive troponin (hsTnT) are important markers of the cardiac function. According to some studies Ischemia-Modified Albumin (IMA) is reported as an early and useful molecule to evaluate ischemic heart events. The aim of this study is to investigate the relationship between IMA and cardiac markers.
Material and Methods: In this retrospective study hsTnT, CK-MB, myoglobin and IMA values of 143 patients were chosen randomly. Test results were obtained from Ankara Ataturk Training and Research Hospital Laboratory Data System. Correlation of IMA with hsTnT, CK-MB and myoglobin values were analyzed by using SPSS 22.0.
Results: All correlations were obtained by using Spearman's test. No significant correlation was found between both IMA and CK-MB or IMA and hsTnT values (r= 0.114, r= 0.084; p>0.05 respectively). However negative significant low correlation was found between IMA and myoglobin levels (r=-0.176; p=0.05).
Discussion: Data presents a significant but low correlation between IMA and myoglobin. Some recent studies report significant interaction with myocardial injury and serum IMA levels, serum samples taken from patients within the first 3 hours of applying to emergency department. In contrast to this finding, some reports IMA elevations show no significant difference between first and second days after myocardial injury. In our study, most of the patients' serum samples were taken 3 hours after myocardial damage which may be the reason for the lack of correlations between IMA and CK-MB or IMA and hsTnT.
Key Words: IMA, Ischemic Heart Event, Troponin, Myoglobin, CK-MB

P-29

RELATION BETWEEN THIOL GROUPS AND AGING

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Introduction: Aging is a basic biological process. There are numerous irreversible changes in metabolism in the aging process. One of the most important of these is the accumulation of damage products caused by reactive oxygen species (ROS) formed during metabolism. Oxidative stress occurs when the balance between antioxidants and ROS are disrupted. The human body contains various antioxidants, such as thiol, which serve to balance the effects of oxidants. Thiols are a class of organic compound that contain sulfhydryl (-SH) group formed by combination of a hydrogen and a sulfur atom with a carbon atom. In this study, the effect of aging on thiol exchange was studied.
Material and Method: The patients' thiol levels were screened retrospectively between for the last 4 months in laboratuary information system of Ataturk Training and Research Hospital. A total of 2568 patients were included in this study. Patients were divided into 4 groups according to their age. (Grup1: 1-25, grup 2: 26-50, grup 3: 51-75, grup 4:76-100). IBM SPSS 23.0 Statistical Program was used for the analysis.
Results: The results showed a statistically significant difference between thiol levels and aging period in all grups (p <0.0001).
Discussion: In recent years, research on aging has focused more on oxidative stress and has been suggested to play an important role in the aging process. In our study, the reduction of antioxidant capacity with aging was shown by the increase in age and the decrease in the amount of serum thiol.
Key Words: Oxidative Stress, Thiol, Age

P-30

RELATION OF ISCHEMIA-MODIFIED ALBUMIN AND ACUTE-PHASE REACTANTS

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Introduction: Erythrocyte sedimentation rate (ERS) and C-reactive protein (CRP) are acute-phase reactants and non-specific markers which are commonly employed in daily practice to investigate acute inflammation. Ischemia-modified albumin (IMA) is a good marker for indicating oxidative stress as a result of ischemia. Moreover, recent studies have shown significant higher relation between IMA and chronic oxidative stress in metabolic syndrome, hyperlipidemia and type 2 diabetes mellitus. Objective of this study is to inspect the relationship between IMA and acute-phase reactants.
Material and Methods: Patients (n=197) who applied to Ankara Ataturk Training and Research Hospital between January 1st to April 15th 2017 were enrolled in the study. Correlation of IMA with CRP and ESR values were investigated by using SPSS 22.0.
Results: Significant correlations were both found between CRP and albumin (r= -0.548, p<0.001), CRP and IMA (r= 0.549, p<0.001). Moreover, significant correlations were obtained between ESR and albumin (r= -0.543, p<0.001), ESR and IMA (r= 0.447, p<0.001).
Discussion: According to the statistical findings, there is a significant high negative correlation between CRP and IMA same as the correlation of ESR and IMA. This relationship may be caused from the emergence of reactive oxygen species in the presence of acute inflammation. Moreover, significant positive correlation of albumin with both ESR and CRP also suggest a relation of oxidative stress. In conclusion, IMA has a correlation with acute phase reactants.
Key Words: IMA, ESR, CRP, Acute Phase, Inflammation

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RELATION OF THYROID FUNCTION TESTS AND THIOL/DISULFIDE HOMEOSTASIS

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Introduction: Thyroid function tests include triiodothyronine (T_3), thyroxine (T_4) and thyroid stimulating hormone (TSH) tests which are used to evaluate the activity of the thyroid gland. Thiols are the sulphydryl group (-SH) of albumin and responsible for many functions in body such as detoxification, signal transduction, regulation of enzymatic activity and transcription and cellular signal mechanisms. Aim of this study is to investigate the relationship between thyroid function tests and thiol-disulfide homeostasis.
Material and Methods: Patients (n=869) who applied to Ankara Ataturk Training and Research Hospital between 11.01.2016-03.31.2017 were enrolled in the study. Correlation of serum native thiol with T_3, T_4 and TSH values were investigated by using SPSS 22.0.
Results: All correlation tests were done by Spearman's test. Significant positive correlations were found between T_3 and native thiol values (r= -0.644, p<0.001). There were no correlations between T_4 and native thiol (r=0.038, p=0.271). Significant positive correlations were observed between TSH and native thiol (r=0.197, p<0.001).
Discussion: We found a significant correlation between native thiol and T_3 levels. Moreover, there were also a low but significant correlation between native thiol and TSH values. TSH is responsible for stimulating the thyroid gland to secrete T_3 hormone. After secretion, T_3 is transported by thyroid-binding globulin and albumin in the body. Significant positive correlation of native thiol with T_3 and TSH levels may be due to the high relation of thiols with albumin.
Key Words: Thiol/Disulfide Homeostasis, TSH, T_3, T_4, Albumin

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THE RELATION OF SERUM COPPER AND ZINC LEVELS WITH COGNITIVE FUNCTION: A PRELIMINARY STUDY

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Introduction: It is known that trace elements like copper, zinc, cadmium, selenium play a role in metabolic processes and oxidation-reduction reactions in central nervous system and could have a possible effect on cognitive function. The aim of this study to investigate the relation of copper and zinc levels with cognitive functions.
Material and Methods: 22 healthy volunteers participated in this study were tested with MOCA test which reflects cognitive functions. Also their bloods were drawn simultaneously and copper and zinc levels were measured with Atomic Absorption Spectroscopy (AAS). The correlation between copper, zinc levels and MOCA test result were investigated.
Results: There is a negative significant correlation between age and zinc level ($r=-0.707$, $p<0.001$); attention and copper level ($r=-0.469$, $p= 0.028$); also age and visual perception ($r=-0.43$, $p=0.04$).
Discussion: A negative correlation between age and zinc level was found in this study in line with researches suggesting decreasing amount of zinc with age. Visual perception is decreased with age as expected but it is not related with copper and zinc levels. The negative correlation between copper and attention is consistent with other studies. The mechanism for copper's effect on cognition is believed to be its interaction with Aβ peptide causing Aβ aggregation and the production of hydrogen peroxide, an oxidant and neurotoxin.
Key Words: Trace Element, Cognitive Intelligence, Zinc, Copper

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RELATIONSHIP BETWEEN THE DYNAMIC THIOL/DISULPHIDE HOMEOSTASIS AND BILIRUBIN

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Introduction: The aim of this study was to investigate the relationship among serum total and direct bilirubin concentrations and thiol/disulphide homeostasis tests in different groups of the patients.
Material and Methods: The serum total, direct bilirubin, albumin concentrations and thiol/disulphide homeostasis tests of the patients were screened retrospectively by using the laboratory information system of Atatürk Training and Research Hospital. The 343 patients included in the study were divided into three groups, based on the reference limits of the total bilirubin concentration (normal, mildly elevated and high). The relationship between serum total, direct bilirubin and thiol-disulphide homeostasis was analyzed using with IBM SPSS Statistics 23.0.
Results: There was a significant difference between the native thiol, total thiol and disulphide averages of the groups (p<0.001). There was a negative correlation between total bilirubin concentrations and native thiol (r=-0.52, p<0.05). The mean native thiol values of the groups were 381.5, 242.5 and 211.6, the mean disulphide values of the groups were 12.6, 11.4 and 15.0 and the mean albumin values of the gropus were 3.5, 2.7 and 2.6, respectively.
Discussion: In this study, the thiols have been affected by the physiological status and act as an antioxidant in the normal and mildly elevated group. Mildly elevated bilirubin levels have been shown to be protective against many of diseases related with increased oxidative stress. But, the native thiol concentration was decreased proportional to the albumin concentration which is the major indicator of the serum thiol concentration and hepatic synthesis ability in the third group. To conclude, thiols may be an indirect indicator of liver's ability to synthesize.
Key Words: Total Bilirubin, Oxidant-Antioxidant, Thiol/Disulphide Homeostasis

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SEPARATION ANXIETY PREDICTS ANXIETY IN ADULTHOOD

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Introduction: Separation Anxiety (SA) is a particular type of anxiety, due to an imaginary or an actual separation from an attachment igüre.SA might become manifest both in behavior and emotional responses and diminishes with adjustment (1,2). Although SA itself is a conditional and temporary type of anxiety, it is not clear whether SA is a premise of other anxiety types over time. It was aimed to assess the potential relationship between SA and adult type anxiety.
Material and Methods: 21 subjects were males with a mean age of 23 (SD=7.3) years and 23 were females whose mean age was 22 (SD=6.9) years, with the overall mean age of the 44-subject sample being 22 (SD=6.6) year. Subjects were randomly asked to participate in the study. Separation Anxiety Symptom Inventory (SASI) is a 15-item inventory questioning childhood SA (3) and Adult Separation Anxiety Checklist (ASA) is a 27-item self-assessment questionnaire that assess adulthood SA (4). The State-Trait Anxiety Inventory (STAI) (5) has two inventories, state (STAI-S: how subjects feel at a particular moment)and trait (STAI-T: how subjects generally feel). Measurement tool was 4- point likert scale.
Results: There was significant correlation between state/trait anxiety, childhood and adult SA (Table 5). The results also showed that SA in childhood was a predicted by trait anxiety ($p=0.032$) in the linear regression [$F(3.43)=10.08$, $p<0.001$] and SA in the adulthood was predicted by state anxiety ($p=0.009$) in the linear regression [$F(3.43)=11.78$, $p<0.001$].
Discussion: Adult SA was determined by state anxiety, whereas childhood SA was predicted by trait anxiety. This relationship may indicate that childhood anxiety progresses into generalized anxiety with development, whereas adulthood anxiety is more likely to remain state dependent. SA is also a state dependent type of anxiety.
Key Words: Separation Anxiety, State Anxiety, Trait Anxiety

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SERUM CALCIUM LEVELS AND ITS CORRELATION WITH THIOL-DISULFIDE HOMEOSTASIS

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Introduction: The single most abundant protein in normal plasma is albumin, usually constituting up to two-thirds of total plasma protein responsible from transporting many substances (thyroxine, bilirubin, penicillin, cortisol, calcium, magnesium). Approximately 80% of the protein-bound calcium fraction is associated with albumin. Albumin also comprise sulphydryl group (-SH) also called as thiols. Aim of this study is to investigate the relation between thiol and calcium levels.
Material and Methods: In this retrospective study calcium, albumin and thiol data of 495 patients were included randomly. Test results were obtained from Ankara Ataturk Training and Research Hospital Laboratory Data System. Association between calcium and thiol were analyzed by using SPSS 22.0.
Results: According to the Spearman rank correlation test, results were as follows: Thiol and calcium (r=0.624; p<0.001), albumin and calcium (r=0.71; p<0.001), albumin and thiol (r=0.823; p<0.001). Multiple linear regression model has been made useful to discuss the potential relationship between both the increase on the thiol and albumin level and increase on thiol and calcium level. In this study, albumin and calcium levels have been designed as continuous independent variable and, thiol level has been designed as continuous dependent variable. According to the analysis results, although serum calcium and thiol level do not have a significant correlation (*β coefficient*: -0.024, standard error:4.354; p=0.492); calcium and albumin level have significant correlation (*β coefficient*:0.819, standard error:4.869; p<0.001).
Discussion: Albumin concentrations are vital to interpret calcium levels because it is bound to albumin, so decreases in albumin is directly responsible for depression of calcium concentrations. Significant high positive correlation between calcium and thiol results from their direct relation with albumin.
Key Words: Calcium, Albumin, Thiol-Disulfide Homeostasis

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A LOOK AT THE FUTILE TREATMENT OPTIONS OF TERMINAL CANCER

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Introduction: Cancer is a depressive and painful disease with a high mortality rate and only a few possibilities for successful treatment. When a patient is diagnosed with end-stage cancer, it is usually the physician and the family of the patient who determine the treatment options. However, can we state that treatment of terminal cancer is worth the effort and not futile?
Material and Methods: I had help from articles on pubmed and Acıbadem University's symposium about end of life care.
Results: Futile treatment is an intervention given to a patient that has neither a positive nor negative effect on a disease's course. The Hippocratic Oath includes a promise not to treat patients who are "overmastered by their disease," which means that we should not provide futile treatment if a patient is likely to die. When treatment of a terminal illness is found to be ineffective, it is often considered a waste of time, money, and resources. The supply of resources for critical care is already limited. Since survival rates from treatment for end-stage cancer are poor, a patient may not want to pursue any treatment at all.
Discussion: As an observer from Turkey and a person who has seen many family members overmastered by cancer, I believe that stopping futile treatment is the best option for the sake of patients and the country's medical care system. Hospice care and palliative care —both available in Turkey—may be better options than futile treatment.
Key Words: Futile Treatment, Hospice Care, Palliative Care, Terminal Cancer

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STRESS AND ANXIETY ARE ASSOCIATED WITH POOR COGNITIVE FUNCTION IN YOUNG ADULTS

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Introduction: It is evident that anxiety deteriorates cognitive performance in health and disease. Characteristics of anxiety may vary, in particular intermittent (state) and continuous (trait) subtypes differ both in clinical course and pathophysiology. It was aimed to assess the effects of specific anxiety types on cognitive performance in this study.
Material and Methods: Healthy subjects (n=80, Mean Age=21,74±1,908) were assessed with the State-Trait Anxiety Inventory (STAI), Perceived Stress Scale (PSS) and Perceived Deficits QuestionnaireDepression (PDQ-D). The STAI measures anxiety as state (intermittent) and trait (continuous) anxiety.
Results: There was strong correlation between cognitive dysfunction and stress, state and trait anxiety ($p<0.001$). Cognitive dysfunction was determined by trait anxiety ($p=0.014$), in a linear regression model where stress, state and trait anxiety were independent variables [$F(3,79)=10.71$, $p<0.001$]. Attention/concentration subscale of the PDQ-D was predicted by state anxiety ($p=0.005$) subscale of the STAI [$p<0.001$, $F(3,79)=12.34$]. Prospective memory ($p=0.002$) and organization/planning ($p=0.016$) were determined by trait anxiety [$F(3,79)=9.25$, $p<0.001$; $F(3,79)=8.78$, $p<0.001$ respectively].
Discussion: These results indicate that cognitive dysfunction in general is related with trait, rather than state anxiety. Specific types of anxiety were related with specific types of cognitive dysfunction. It can be concluded that specific types of anxiety differently effect cognitive performance. State anxiety may affect attention through acute cathecolaminergic activation, whereas trait anxiety may disturb cognitive function by activating stress hormones.
Key Words: Anxiety, Stress, Cognitive Functions

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THE AVERAGE LEVELS OF VITAMIN A AND VITAMIN E IN THE PATIENTS ADMITTED TO OUR HOSPITAL

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Introduction: Vitamin A and its derivatives, are involved in several important cellular processes. They have anti-oxidative properties and the ability to regulate gene expression. Vitamin E occurs naturally in the diet. It has several biological activities, including functioning as an antioxidant to scavenge toxic free radicals. In this project we aimed to invastigate the avarage levels of vitamin A and vitamin E in the patients admitted to our hospital.
Material and Methods: Between January 1, 2016 and December 31, 2016, patients who had both vitamin A, vitamin E parameters were screened retrospectively for patients who were admitted to Ankara Atatürk Training and Research Hospital. IBM SPSS Statistics 23.0 statistical program was used for the analysis.
Results: The mean value of vitamin A is 708.27 mg/L and the mean value of Vitamin E is 11.89 mg/L. We also found a positive correlation between Vitamin A levels and Vitamin E levels (r = 0.114 , p = 0.045)
Discussion: Vitamin E defincy effects on cell growth. Vitamin E modulates the activity of several signal transduction enzymes with consequent alterations of gene expression. Vitamin A effects on gene expression. They are both strong antioxidants and so important for human metabolism. In this study we also found a positive correlation between these parameters.
Key Words: Vitamin A, Vitamin E

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THE COMPARISION OF FERROXIDASE ACTIVITY IN SERUM AND PLASMA SAMPLES

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Introduction: Ferroxidase (Ceruloplasmin) also known as Fe(II):oxygen oxidoreductase is an enzyme that catalyzes the oxidization of iron II to iron IIIFerroxidase exhibits antioxidant activity and involved in many biological processes. Ferroxidase is very important to covert Fe^{+2} to Fe^{+3} by using this coverting iron binds transferrin and ferritin. The aim of this study is to evaluate how change ferroxidase activity in serum and plasma samples.
Material Method: We used to waste serum and plasma samples belonged to same person for evaluating ferroxidase activity. 40 patients applied to Ankara Atatürk Training and Research Hospital were included in this study. Feeroxidase activity measurement was done by using Cobas 8000 auto analyser. The results were investigated by using IBM SPSS 22.0.
Results: According to our result, the mean of ferroxidase activity in serum was 494.14 U/L and in plasma was 368.25 U/L. A high positive correlation was found between serum and plasma ferroxidase activity $p<0.0001$; r: 0.972.
Discussion: Ferroxidase activity measurement uses iron ions. Plasma tubes with ETDA, used commonly in routin laboratory, binds some of iron ions. Because EDTA is one of the most known metal chelator. There is a reasonable decrease plasma samples for ferroxidase activity. Since plasma tubes with EDTA results from some decreases ferroxidase activity, it is not recommented for using plasma tubus with EDTA for ferroxidase measurement.
Key Words: Plasma Tubes With EDTA, Ferroxidase, Serum

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THE COMPARISION OF ISCHEMIA MODIFIED ALBUMIN (IMA) LEVELS IN SERUM AND PLASMA SAMPLES

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Introduction: Myocardial ischemia alters the N-terminus of lbümin reducing the ability of cobalt to bind to lbümin. The generation of ROS can transiently modify the N-terminal region of lbümin and produce an increase in the concentration of ischemia-modified lbümin (IMA). The aim of this study is to evaluate how change IMA levels in serum and plasma samples.
Material Method: We used to waste serum and plasma samples belonged to same person for evaluating IMA levels. 40 patients applied to Ankara Atatürk Training and Research Hospital were included in this study. IMA measurement was done by using Cobas 8000 auto analyser. The results were investigated by using IBM SPSS 22.0.
Results: According to our result, the mean of IMA level in serum was 70.0 ABSU and in plasma was 0,8 ABSU. It was no significant correlation between serum and plasma by using Spearman's test.
Discussion: IMA measurement uses Co^{+2} ions for determining intact albumin or undamaged albumin. Plasma tubes with ETDA, used commonly in routin laboratory, binds nearly Co^{+2} ions. Because EDTA is one of the most known metal chelator. Therefore, IMA measurement can not be done in plasma tubes with EDTA. That is the reason why serum IMA levels are normal one the other hand IMA values in plasma are abnormal.
Key Words: Plasma Tubes With EDTA, IMA, Serum

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THE CORRELATION BETWEEN SERUM LIPID PROFILE AND FERROXIDASE ACTIVITY

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Introduction: Lipid profile or lipid panel is a panel of blood tests that serves as an initial broad medical screening tool for abnormalities in lipids, such as cholesterol, triglycerides and LDL. This test is used to identify dyslipedemia (various disturbances of cholesterol and triglyceride levels), many forms of which are recognized risk factors for cardiovascular disease and rarely pancreatitis. Oxidative stress is a unbalance stiation between oxidant and antioxidant molecules. This stiation is associated with coronery artery disease like increased serum lipid levels. Ferroxidase (Ceruloplasmin) exhibits antioxidant activity and involved in many biological processes. The aim of this study that evaluate relationship serum lipid profile with ferroxidase activity.
Material and Methods: Patients (n=109) that applied to Ankara Ataturk Training and Research Hospital between 02.08.2016-04.18.2017 were enrolled in the study. Correlation of serum lipid profile with ferroxidase activity were investigated by using IBM SPSS 22.0.
Results: According to Pearson test, positive significant correlation was found between cholesterol levels and ferroxidase. For cholesterol $p<0.03$; *r:* 0.281. There is no significant correlation of LDL, HDL and triglyceride levels with ferroxsidase activity $p>0.05$
Discussion: In literature, there are a lot of study reported lipid induced oxidative stress, especially cholesterol. According to our results, a slightly correlation between total cholesterol levels and ferroxidse activity. Because ferroxidase has an antioxidant property, its activity could be increase for compensating oxidative stress induced high lipid levels.
Key Words: Lipid Profile, Cholesterol, Ferroxidase, Oxidative Stress

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THE CORRELATION BETWEEN FERRITIN VALUES AND THIOL/DISULPHIDE HOMEOSTASIS

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Introduction: Ferritin, present in much tissues, is a cytoplasmic protein. It is important for storage of intracellular iron. Serum ferritin is recognized as an acute phase reactant and marker of acute and chronic inflammation. Thiol/disulphide homeostasis is responsible from antioxidant protection, detoxification, apoptosis etc. in the body. The aim of this study is to examine the relationship between levels of ferritin and thiol/disulphide homeostasis.
Material and Methods: Patients (n=57) that applied to Ankara Ataturk Training and Research Hospital between 10.01.2016-02.23.2017 were enrolled in this retrospective study. Correlation of native and total thiol with ferritin values were investigated by using IBM SPSS 22.0.
Results: According to Spearman's test a significant negative correlation was found between ferretin and native/total thiol levels (p<0.0001; r:0.612, and p<0.0001; r:- 0,575, respectively).
Discussion: Ferritin is an acute phase reactant and its level increases in inflammation. Native thiols are –SH groups. In the presence of oxidative status, -SH groups convert to S-S; disulphide bounds in proteins, causing this negative correlation between native thiol and ferritin levels.
Key Words: Thiol/Disulphide Homeostasis, Ferritin Acute Phase

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THE CORRELATION BETWEEN LEVELS OF FERROXIDASE AND ISCHEMIA MODIFIED ALBUMIN (IMA) WITH FERRITIN

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Introduction: Serum ferritin is described as an acute phase reactant and marker of acute and chronic inflammation. Ferroxidase (ceruloplasmin) exhibits antioxidant activity and involved in many biological processes. Ferroxidase is very important to covert Fe^{+2} to Fe^{+3} by using this converting iron binds transferrin and ferritin. The aim of this study is to investigate the relationship between levels ferroxidase and ischemia modified albumin (IMA) with ferritin.
Material and Methods: Patients (n=55) who applied to Ankara Ataturk Training and Research Hospital between 01.08.2016-04.13.2017 were enrolled in the study. Correlation of ferroxidase and ischemia modified albumin (IMA) with ferritin were investigated by using IBM SPSS 22.0.
Results: According to Pearson test positive significant correlation was found between ferroxidase and Ferritin levels. For ferroxidase levels $p<0.001$; r:0.523. On the other hand, there was no correlation between ferritin and IMA.
Discussion: Ferroxidase, a very important enzyme in iron metabolism, converts Fe^{+2} to Fe^{+3} and carries ferric iron ions to transferrin and ferritin. Decreased ferroxsidase activity fails iron absorption causing a diminished in iron levels. Our results showing a negative correlation between ferritin and ferroxidase may suggest an increased ferritin synthesis to compensate decreased iron levels in body.
Key Words: Ferroxidase, IMA, Iron Metabolism

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THE CORRELATION BETWEEN LEVELS OF FERROXIDASE AND ISCHEMIA MODIFIED ALBUMIN (IMA) WITH HBA1C

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Introduction: Glycated hemoglobin or HbA1c is one of the hemoglobin species showing the three-month average plasma glucose concentration. In diabetes mellitus, higher amounts of glycated hemoglobin, indicating poorer control of blood glucose levels, have been associated with cardiovascular disease, nephropathy, neuropathy, and retinopathy. Ferroxidase (ceruloplasmin) exhibits antioxidant activity and involved in many biological processes. The aim of this study is to investigate the relationship between levels ferroxidase and ischemia modified albumin (IMA) with HbA1c.
Material and Methods: Patients (n=75) who applied to Ankara Ataturk Training and Research Hospital between 11.08.2016-04.13.2017 were enrolled in the study. Correlation of ferroxidase and ischemia modified albumin (IMA) with HbA1c were investigated by using IBM SPSS 22.0.
Results: According to Spearman's test a significant positive correlation was found between ferroxidase and HbA1c levels (p<0.0001; r:0.504). On the other hand, there was no correlation found between HbA1c and IMA levels.
Discussion: Ferroxidase is an acute-phase-responsive oxidase enzyme. The prior reports in literature indicates an association between increased ferroxidase levels and diabetes mellitus. This correlation may be due to the increased oxidative stress in diabetes mellitus, causing an increase in ferroxidase activity to compensate oxidative status. Our result suggest that, ferroxidase acts as an antioxidant in diabetes mellitus to diminish the effects oxidative stress.
Key Words: Ferroxidase, IMA, HbA1c.

P-45

THE CORRELATION BETWEEN SERUM FERRITIN LEVELS AND AGE

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Introduction: Ferritin, a cytoplasmic protein, is present in many tissues. It is important for storage of intracellular iron. The aim of this study to evaluate correlation between serum ferritin levels and age.
Material and Methods: Patients (n=41) who applied to Ankara Atatürk Training and Research Hospital between 02.08.2017-03.18.2017 were enrolled in the study. Correlation of ferritin levels with age were investigated by using IBM SPSS 22.0.
Results: According to Spearman's test positive significant correlation was found between ferritin levels and age. Patients have 18-21 age range. In nonparametric correlation analysis, ferritin levels have positive correlation with age (p<0.008; r: 0.421).
Discussion: In our results, ferritin and age have a positive correlation. Since iron storage increases with aging, ferritin synthesis also scales up in body to compensate increasing iron levels.
Keywords: Ferritin, Age, Iron, Acute Phase

P-46

THE CORRELATION OF FERROXIDASE ACTIVITY WITH AMILASE AND LIPASE ENZYMES VALUES

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Introduction: Amylase and lipase are key digestive enzymes. Amylase helps your body break down starch. Lipase helps your body digest fats. The pancreas, a glandular produces both of these enzymes. Ferroxidase (Ceruloplasmin) exhibits antioxidant activity and involved in many biological processes. Ferroxidase is very important to covert Fe^{+2} to Fe^{+3} also iron metabolism. The aim of this study to investigate association of ferroxidase levels with serum amilase and lipase activities.
Material and Methods: Patients (n=63) that applied to Ankara Ataturk Training and Research Hospital between 05.01.2016-02.23.2017 were enrolled in the study. Correlation of amilase and lipase levels with ferroxidase values were investigated by using IBM SPSS 22.0.
Results: Our result were analysed by using Pearson correlation test. There is no significant correlation between amilase and lipase activites with ferroxidase values ($p>0.05$; r: -0.11 and $p>0.05$; *r:* 0.231,resepectively).
Discussion: Amilase and lipase enzymes activity increases in blood samples in acute pancreatitis which is an inflammatory condition. On the other hand ferroxidase is one of the acute phase reactant molecules. When inflammation begins in body, ferroxidase levels increase. However in our results, there is no significant correlation between amilase and lipase enzymes and ferrosidase activity. This may be due to the small number of patients included in our study.
Key Words: Ferroxidase, Amilase, Lipase

P-47

THE DETERMINATION OF THE CAUSES OF HEMOLYZED SPECIMEN

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Introduction: The aim of this study is to evaluate the frequency and the causes of hemolysis by classifying the rejected specimens, sent to the Ankara Atatürk Training and Research Hospital medical biochemistry laboratory, because of hemolysis.
Material and Methods: Data were screened via the laboratory information system retrospectively, the hemolysis rates were evaluated and classified according to the departments from which tests were requested. A total of 20 observations were performed in outpatient clinics and emergency department by using The Hemolysis Event Check List to obtain preanalytical error sources.
Results: A total of 237,516 specimen rejections were analyzed. 49 of the specimens were rejected due to hemolysis (0.02%). The highest hemolyzed sample rejection rate was in the emergency department (17 samples). Based on the observations, "giving no adequate time for drying the alcohol after cleaning the venipuncture site" (n=6) and "incorrect mixing of vacuum tubes" (n=7) were the most common preanalytical error source.
Discussion: We found that the highest numbers of hemolyzed specimens were sent from emergency department. Having a greater number of patients and critical patients care, lack of qualified and experienced staff and complying the preanalytical rules not properly owing to the need for urgent care might be possible causes of the increased error rates in the emergency departments. Drawing, processing, transferring and storing of the blood samples are the main preanalytical steps prone to hemolysis. The frequency of specimen rejections due to the hemolysis can be decreased with improved education and training of the staff involved in the preanalytical process.
Key Words: Hemolysis, Preanalytical Error, Emergency Department.

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THE EFFECT OF BODY MASS INDEX ON SURVIVAL IN ADVANCED STAGE NON-SMALL CELL LUNG CANCER

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Introduction: Lung cancer is a malignant tumor characterized by uncontrolled cell growth in tissues. Body mass index (BMI) is calculated by dividing the body mass (kg) by the square of the length (m). We investigated the association of BMI and survival of the lung cancer.
Material and Methods: Patients with advanced non-small cell lung cancer (NSCLC) who admitted to the Ankara Yıldırım Beyazıt University, Department of Medical Oncology were retrospectively analyzied. Patient information was obtained through patient files and the hospital information system. Survival rates were calculated using Kaplan-Meier survival analysis.
Results: 42 patients with advanced NSCLC were included to the study. The median age of the patients were 66.5years. 85.7% of the patients were male and 14.3% were female. At diagnosis, ECOG performance scores 0,1,2 and 3 were 21.4%, 42.9%, 28.6% and 7.1%, respectively. 48% of the patients were found to have a BMI >25 and 51.4% were ≤25. Patient's demographic characteristics didn't differ between BMI>25 and ≤25. Median overall survival(OS) of all patients are 6.2 months. There was no statistically significant difference between groups with BMI>25 and ≤25.
Discussion: There is emerging evidence that obesity is associated with increased risk of certain types of cancers. However, evidence is less convincing and somewhat controversial for lung cancer, because of the small number of patients, studies with larger patient groups are needed.
Key Words: Body Mass ndex, Non-Small Cell Lung Cancer, Survival

P-49

THE EFFECT OF INHIBITOR OF P97/VALOSIN CONTAINING PROTEIN, DBEQ, ON SERTOLI CELL'S AUTOPHAGY

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Introduction: A specific inhibitor of p97/Valosin containing protein (VCP), DBeQ, would provide an important tool to investigate diverse functions of p97/VCP and to evaluate its potential to be a therapeutic target in human disease. It is known that DBeQ blocks multiple processes including degradation of ubiquitinlated proteins and endoplasmic reticulum-associated degradation pathway proteins, as well as autophagosome maturation. However, the effect of DBeQ on male reproduction system especially on Sertoli cell autophagy has not been studied until now. The aim of this study is to investigate the role of DBeQ in the formation of autophagosome in mouse Sertoli cells.
Material and Methods: Sertoli cell lines (15P1, ATCC) was used and maintained in DME supplemented with penicillin/streptomycin, 10% fetal bovine serum. Autophagy was induced with rapamycin (10 µg/ml) in mouse Sertoli cells. The expressional differences of autophagosomal (LC3B and p62) and autolysosomal markers (LAMP1 and LAMP2) in mouse Sertoli cells examined after blocking of p97/VCP activity with specific p97/VCP inhibitor, DBeQ. Cells were incubated with 5, 10 and 15 µM DBeQ for 3 h and then cytosolic LC3II, p62 and p97/VCP levels were determined by using Western blotting and immunofluorescence. Analysis of proteins were done by Image J programme.
Results: The expression of p97/VCP and autophagosomal proteins (LC3B and p62) were shown in the cytoplasm of Sertoli cells by using immunoflorescence and Western blotting studies. Loss of p97/VCP activity with p97/VCP inhibitor result in autophagosome accumulation. 5 µM DBeQ had little effect on the expression of LC3B and p62, whereas 15 µM DBeQ completely stabilized LC3-II and p62 levels on Sertoli cells.
Discussion: These data implicate that functional p97/VCP is required for autophagosome maturation and spesific inhibitor of p97/VCP, DBeQ, impairs the autophagy pathway in Sertoli cells. Our results provide a preliminary data for targeting p97/VCP in Sertoli cell related diseases.
Key Words: p97/VCP, Autophagy, Sertoli Cell, İnhibitor Of p97/VCP, Mouse

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THE EVALUATION OF REASONS OF THE SPECIMEN REJECTION IN THE PREANALYTICAL PHASE

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Introduction: The aim of this study was to investigate the reasons and the frequency of specimen rejection that are sent to the laboratory of Atatürk Training and Research Hospital.
Material and Methods: Data were screened retrospectively via laboratory information system to determine the number of specimens that were sent to the center laboratory of Ankara Yıldırım Beyazıt University Faculty of Medicine Atatürk Training and Research Hospital. Between Agust 2016 and February 2017 the screening of the data were performed. All results were analyzed with the programme of Microsoft Excel.
Results: The total number of specimens accepted in the laboratory was 125,785, of which 1.159 (9%) were rejected. When analyzing the causes of specimen rejection, 676 clotted samples (58%), 155 insufficient samples (13.37%), 145 incorrect tubes/containers (12.5%), 67 false positives (5.78), 86 other causes (7.42%, 36 hemolysis (3.1%), 32 inappropriate transports (2.76) and 25 false claims (2.16%). When the distribution of specimen rejections were analyzed by the department of the hospital, 769 samples (66%) from the emergency department were rejected.
Discussion: In our study, it was determined that the most frequently rejected samples were clotted samples similar to the other studies. It was observed that the preanalytical error rate in the emergency department was higher than the other departments because the number of the patients were high and the working conditions were severe. To reduce the specimen rejection rate, the frequency of education programme given to the personnel working in the high rejection departments should be increased, the preanalytical errors can be minimized.
Key Words: Specimen Rejection, Preanalytical Error, Clotted Specimen

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THE EVALUATION OF RELATION BETWEEN SERUM NATIVE THIOLS AND ALBUMIN WITH AMILASE AND LIPASE ACTIVITIES

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Introduction: Amylase and lipase are key digestive enzymes. Amylase helps your body break down starch. Lipase helps your body digest fats. The pancreas, a glandular produces both of these enzymes. Albumin is the main plasma protein which contain sulphydryl group (-SH) also called as thiols. Thiol/disulphide homeostasis is responsible from antioxidant protection, detoxification, apoptosis etc. in the body. The aim of this study to investigate levels of native thiol and albumin association with serum amilase and lipase activities.
Material and Methods: Patients (n=63) that applied to Ankara Ataturk Training and Research Hospital between 05.01.2016-02.23.2017 were enrolled in the study. Correlation of native and total thiol with ferritin values were investigated by using IBM SPSS 22.0.
Results: According to Pearson test negative significant correlation was found between native thiol levels with amilase and lipase levels. Negative correlation between native thiol and amilase $p<0.001$; r:-0.414, lipase $p<0.0001$; r:-0.488 respectively.
Discussion: Amilase and lipase enzymes go up in acute pancreatitis. This disease is an inflammation status. Native thiols have –SH fuctional groups as served antioxidant molecules. In nflamamtion stuation, thiol levels go down for tolareting oxidative stress. This could be a reason negative correlation between and amilase and lipase with native thiols level.
Key Words: Thiol/Disulphide Homeostasis, Ferritin Acute Phase

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THE RELATION OF LIPID PROFILE TESTS WITH SERUM THIOL LEVELS

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Introduction: Lipid profile or lipid panel is a panel of blood tests that serves as an initial broad medical screening tool for abnormalities in lipids, such as cholesterol, triglycerides and LDL. This test is used to identify dyslipedemia many forms of which are recognized risk factors for cardiovascular disease and rarely pancreatitis. Thiol groups, responsible from antioxidant properties, is found abonduntly on albumin molecules. The aim of this study is to examine the relationship between serum lipid tests and serum thiol levels.
Material and Methods: Patients (n=66) that applied to Ankara Ataturk Training and Research Hospital between 07.01.2016-02.23.2017 were enrolled in the study. Correlation of lipid tests with serum thiol levels were investigated by using IBM SPSS 22.0.
Results: According to Spearman's test positive significant correlation was found between HDL and thiol values. For HDL $p<0.0001$; r:0.627 and there is no significant correlation between cholesterol, TG and LDL with native thiol levels $p>0.05$.
Discussion: Our findings show that high positive correlation between HDL and serum tiol levels. In literature, there are a lot of studies reported positive relationship between HDL and thiol molecules. The mechanism of this linkage between HDLcholesterol level and plasma thiol level still unknown. In conclusion, our result are suitable for reported studies in iteratüre.
Key Words: Thiol, Lipid Tests, HDL

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THE INVESTIGATION OF APOPTOSIS IN RATS FED HIGH FAT AND HIGH SUCROSE DIET

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Introduction: High-fat and high-sucrose intakes were shown to contribute to syndromes such as hyperlipidemia, glucose intolerance, hypertension, and atherosclerosis. Numerous studies showed that a high-fat and/or high-sucrose diet induces insulin resistance in rodents. The effect of a long-term high-fat, high-sucrose diet on the apoptosis has not been clarified.
Material and Methods: This research project aims to investigate plasma Caspase 3 (CASP3) levels in High-fat and High-sucrose Fed Rats. For this purpose, Konya Necmettin Erbakan University, KONÜDAM Experimental Medicine Research and Application Center which was available from 28 adult Wistar albino postnatal (8-12 weeks) male rats fed, accompanied by a high-fat, high-sucrose or standard chow. It was divided into several groups, in its blood (plasma) CASP3 levels (markers of apoptosis) were studied with the ELISA method.
Results: The plasma CASP3 levels of fed with standard feed, fed with high sucrose diet, fed with high fat diet and fed with high fat and high sucrose diet were found as (X + SD) 0.34 ± 0.007, 0.36 ± 0.03, 0.36 ± 0.01 and 0.35 ± 0.02 ng/ml respectively. There were no significant differences between plasma CASP3 levels of the groups.
Discussion: Our findings shown that high fat and high sucrose diet may not cause apoptosis. We belive that our finding will contribute to further understanding of the etiopathogenesis of feeding a high-fat and high-sucrose diet-related diseases.
Key Words: High Fat Diet, High Sucrose Diet, Apoptosis

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THE RELATION OF THE DYNAMIC THIOL-DISULPHIDE HOMEOSTASIS AND URIC ACID

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Introduction: The aim of this study was to investigate the relationship among serum uric acid concentrations and thiol–disulphide homeostasis tests in different groups of the patients.
Material and Methods: Patients' uric acid and thiol–disulphide homeostasis data were screened retrospectively between November 2016 and February 2017 using the laboratory information system of Atatürk Training and Research Hospital of Ankara Yildirim Beyazit University Medical Faculty. The 389 patients included in the study were divided into three groups, the uric acid concentration being below the reference limits (45), within the reference limits (256) and above the reference limits (88). The relationship between serum uric acid levels and thiol-disulphide homeostasis was evaluated in three groups. All data were analyzed using IBM SPSS Statistics 23.0.
Results: There was a significant difference between the native, total thiol and disulphide averages of the groups (p<0.001). The disulphide values of the groups were 15.4, 15.8 and 20.7 and the native thiol values of the groups were 353.9, 432.3 and 383.4, respectively. There was a poor positive correlation between uric acid and disulphide values (r=0.281, p<0.05).
Discussion: Several studies have reported that uric acid has an antioxidant function at normal concentrations and has a prooxidant function at high concentrations. In this study, it was observed that oxidative stress was increased and thiol–disulphide homeostasis was impaired in the third group. The correlation between the uric acid and thiol was lower than expected because the antioxidant mechanism of the uric acid and thiol was different from each other.
Key Words: Uric Acid, Oxidant-Antioxidant, Thiol–Disulphide Homeostasis

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THE RELATION BETWEEN IMA LEVELS AND DISLIPIDEMIA

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Introduction: Lipid profile blood tests that serves as an initial broad medical screening tool for abnormalities in lipids, like cholesterol, triglycerides(TG) and LDL. Myocardial ischemia alters the N-terminus of lbümin reducing the ability of cobalt to bind to lbümin. The generation of ROS can transiently modify the N-terminal region of lbümin and produce an increase in the concentration of ischemia-modified lbümin (IMA). The aim of this study is evaluate relationship of serum lipid profile testes with ischemia modified lbümin.
Material and Methods: Patients(n:32) that applied to Ankara Ataturk Training and Research Hospital between 02.08.2016-04.18.2017 were enrolled in the study. All patients had above 200 mg/dl cholesterol levels and had a range 130-219 mg/dl for LDL, 145-294 mg/dl for TG and 33-46 mg/dl for HDL. Correlation of serum lipid profile with IMA were investigated by using IBM SPSS 22.0.
Results: According to Pearson test, there was no found relation of cholesterol LDL, TG and HDL levels with IMA. For cholesterol $p>0.05$; r:0.262, LDL $p>0.05$; r:0.258, TG $p>0.05$; r:0.063 and for HDL $p>0.05$; r:0.063.
Discussion: In literature, there are a lot of study reported association between lipid induced oxidative stress, especially cholesterol and IMA. According these studies, hypercholesterolemia and the increase in inflammatory response are associated with higher levels of IMA. However, we did not any correlation between dislipidemia and serum IMA levels.
Key Words: LDL, Cholesterol, IMA, Oxidative Stress

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THE RELATION BETWEEN ISCHEMIA MODIFIED ALBUMIN (IMA) WITH AMILASE AND LIPASE ACTIVITIES

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Introduction: Amylase and lipase are key digestive enzymes. Amylase helps your body break down starch. Lipase helps your body digest fats. The pancreas, a glandular produces both of these enzymes. Ischemia alters the N-terminus of lbümin reducing the ability of cobalt to bind to lbümin. The generation of ROS can transiently modify the N-terminal region of lbümin and produce an increase in the concentration of ischemia-modified lbümin (IMA). The aim of this study to investigate association of levels of IMA with serum amilase and lipase activities. **Material and Methods:** Patients (n=63) that applied to Ankara Ataturk Training and Research Hospital between 05.01.2016-02.23.2017 were enrolled in the study. Correlation of amilase and lipase levels with IMA values were investigated by using IBM SPSS 22.0.
Results: Our Result were analysed by using Pearson correlation test. There is no significant correlation between Amilase and Lipase activites with IMA values. For Amilase $p>0.05$; r: -129 and for Lipase $p>0.05$; r: 0.023.
Discussion: Recently, introduced IMA as novel oxidative biomarker may be included some process resulting from oxidative stress. There is some reported about IMA, they have shown that IMA has a strong relation with Amilase enzyme activity. But, in our study, there is no relationship amilase and Lipase levels with IMA. This result may be due to the small number of patients included in study.
Key Words: IMA, Amilase, Lipase

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THIOL-DISULPHIDE HOMEOSTASIS IN PATIENTS WITH ALKALOSIS

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Introduction: Thiol-disulphide homeostasis is a new concept that shows oxidative status of the patient. Recently, studies show that chronic acidosis may lead to increased generation of reactive oxygen species and increased oxidative activity. But there is not enough studies about relation between thiol disulphide homeostasis in diseases which cause alkolosis. The project's object is to investigate the oxidative status in patients with alkalosis.
Material and Methods: Blood gas and thiol-disulfide results of samples which were analyzed in Ankara Ataturk Training and Research Hospital were taken from laboratory data system. The correlation between disulphide levels and pH levels were investigated.
Results: This study consists of 130 patient's test results. There is a significant correlation between disulphide levels and disulphide/native thiol ratio with blood gas pH (r=0.27, p=0.002; r=0.17, p=0.04; respectively).
Discussion: It is found that there is a positive correlation between oxidative stress markers (disulphide and disulphide/native thiol ratio) and pH levels. This indicate that thiol-disulphide homeostasis is disrupted in diseases which cause alkalosis. Thiol disulphide homeostasis and ph homeostasis is affected in pathological situations.
Key Words: Thiol-Disulfide Homeostasis, Ph Homeostasis, Oxidative Stress, Alkalosis

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THIOL/DSULFIDE HOMEOSTASIS IN PATIENTS WITH GLIOBLASTOME MULTIFORME

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INTRODUCTION: Oxidative stress represents a biochemical state characterized by an excessive presence of free radicals and reactive metabolites harmful for the organism. It has been well known that a prominent association between the level of oxidative stress and cancer development exists. (1,2) Thiol/disulfide homeostasis is a marker for oxidative stress.
The aim of this study was to examine the dynamic thiol/disulfide homeostasis in glioblastome multiforme.
MATERIALS AND METHODS: The data of patients with glial tumor who were followed up between January 2014 and December 2016 in Yıldırım Beyazıt University Medical Oncology Department were retrospectively reviewed. Thirty-six patients with diagnosis of glioblastoma multiforme according to WHO classification criteria were included in this study. Patient age, gender, presence of necrosis and rate of ki-67 in pathology preparations, preoperative peripheral blood thiol/disulfide levels were evaluated.
RESULTS: The median age of the patients was 58.8 years (min–max: 37.9–79). Necrosis could be evaluated in 35 patients. According to this, 33(%94,3) patients had necrosis at pathology preparations. The mean value of ki-67 was %20 (min %1-max%60) median follow up time was 16.5 months. Median overall survival was 15.6 ±3.8 months. Median native thiol value was 396.6(min 155-max. 518) and median disulfid value was 17.7(min 3.6-max 28.6)
DISCUSSION: Glioblastome multiforme is a quite aggressive malignancy despite various treatment modalities. The identification of factors involved in etiopathogenesis will be promising for new treatment modalities. For this purpose, further researches with large patient population are needed.
Key Words: Glioblastome Multiforme, Thiol/Disulfide Homeostasis, Oxidative Stress

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OVARIAN METASTASIS FROM SMALL CELL LUNG CARCINOMA: A RARE ENTITY

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Introduction: Ovarian cancer is arising from the cells in and around the ovary and the fallopian tube. There are many different types of ovarian tumours classified by the types of cells and tissue they originate from. One of the types of the ovarian tumours are the metastatic ovarian tumours because the ovaries are the most common metastatic sites from both genital and extragenital primaries, mostly originating in the gastrointestinal tract, and ovarian metastasis represent about 5% to 30% of all ovarian tumors. But the metastasis originating from Small Cell Lung Carcinoma(SCLC) to the ovary is extremely rare.
Materials and Methods: This presentation describes a case of ovarian metastasis from small cell lung carcinoma along with its diagnostic challenges, clinical management, and review of the iteratüre. A 51-year-old post menopausal woman with a oncological history of small cell lung cancer. The patient underwent chemotherapy and was followed up by the oncology department. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, omentectomy, tumoral mass excision from small intestine were performed due to the detection of a left adnexial mass.
Results: Pathologic examination showed that is small cell lung cancer metastasis to ovary.
Discussion: Therefore; we should not forget when we observe a mass, It can be a metastasis from primary sites. The management of female patients with carcinoma should consist of a multidisciplinary approach to include the diagnosis of any distant organ metastasis.
Key Words: Ovarian Carcinoma, Small Cell Lung Carcinoma, Metastatic Tumours

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THE VACCINATION OF SIXTY-FIVE AND OVER AGE PATIENTS

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Introduction: Today, the 65 years of age and over age adults live a healthy, fit and independent life at a later age. They're careful to protect themselves against increasing chronic and epidemic diseases. Preventive health services that will be offered to this age group gain importance in terms of the continuity of healthy and functional life in future ages. The purpose of this study was to determine the vaccination status, the knowledge and awareness of vaccinations of patients aged 65 years and over.
Materials and Methods: The recommended influenza, pneumococcal and tetanus vaccinations, vaccination status and the knowledge levels about these vaccinations of 81 patients in Geriatrics policlinic of Ataturk Training and Reseach Hospital.
Results: The study group consists of 81 individuals, ranging in age from 65 to 88 years. 27 of them were female and 54 were male. 20 people (24.6%) don't know whether they've any of the pneumococcal, influenza and tetanus vaccinations that should be done during the vaccination period. 9 (75%) M and 3 (25%) FM out of the 12 pneumococ. In the study group, 49 (60.4%) did not have tetanus and 11 of them (91.6)'re M and 1 (8.3%)'re FM. 22 (48.7%) M and 3 (9.6%) FM out of 32 who were vaccinated by influenza.
Discussion: Prophylactic health services offered to persons aged 65 years and over should be increased and informed about community immunization. This will provide a better quality of life for adults in the geriatric age group.
Key Words: Geriatrics, Vaccination Status

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CORRELATION BETWEEN 2007-2017 KIDNEY TRANSPLANT RECIPIENTS' IN TURKEY OPINIONS BEFORE AND AFTER THEIR SURGERY

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Introduction: A kidney transplant is a surgical procedure to place a healthy kidney from a live or deceased donor into a person whose kidneys no longer function properly. According to Ministry of Health in 2016 there were 22.146 kidney transplantation took place in Turkey. Some of those transplant recipients may continue their lives without any complications or some may be unpleased as well. We aim to examine the patients' -who had kidney transplant between 2006 to 2016- postoperative lives and if/how changed their perspective to organ donation in general.
Material and Method: We asked 15 question to 80 patients about their transplantion. All test are done by using cell phone and questions are asked to patients personally.
Results: Nearly half of patients who had kidney transplantation don't want to be a organ donor. But all of our patients encourage their friends and relatives to become a organ donor. %90 of our patients took transplanted organ from their relatives. (Mother-father-son-sibling-cousin) Patients think that being an organ donor is underestimated and ignored.
Discussion: By examining results, we can say that "Although kidney transplatantion elevates life quality of patients, give them a comfortable life and give them longer life than without kidney transplantation they would have, some patients don't want to be an organ donor. All of our patients are now have a comfortable life and they are healthy with their new kidneys.
Keywords: Kidney Transplantation, Postoperative