investigated on a large scale. The level of neopterin elevated in patients with advanced systolic heart failure compared with control subjects. The present study assessed the relationship between neopterin, a novel marker of monocyte activation, and risk of hospitalization for HF and mortality.

Methods: The examined group was composed of 54 patients with NYHA class III and IV advanced heart failure and 44 healthy volunteers. All patients medical history was taken. Physical examination and echocardiographic examinations were performed. Neopterin concentration in blood serum was determined with a radioimmunological assay. Twelve months after the patients had left the hospital, their hospital administration, clinical symptoms of heart failure and mortality were evaluated.

Results: The mean neopterin levels were significantly higher with heart failure patients compared with control group. The concentration of neopterin was statistically significantly higher at twenty nine (53,7%) patient whom administer to hospital with decomposed heart failure attacks during follow up (p=0.026). Concentration of neopterin in patient with class IV NYHA of heart failure was significantly higher than in group of patient with class III (p=0.001). The neopterin levels were statistically higher at patients who died (35,1%), (p>0.01). On multiple regression analysis, neopterin levels (p=0.02), ejecction fraction (p=0.001), and hospital administration (p>0.001) were independent predictors of adverse events.

Conclusions: Serum neopterin is an independent predictor of morbidity in patients with advanced heart failure. This marker of macrophage activation may be useful determination prognosis in patients with advanced heart failure patients.

**Echocardiography**

OP-180
Prognostic Role of Incidental Pleural Effusion Diagnosed During Echocardiographic Evaluation

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**Aim:** The purpose of this study is to determine the long-term prognostic implications of incidental pleural effusion (PE) detected during echocardiographic examination and its relationship with concomitant diseases.

**Methods:** The study was performed by evaluating patient (n=251) records in whom PE was incidentally detected during echocardiographic examination in a tertiary hospital between 1999-2012. The patients were classified according to the concomitant primary diseases into four major groups; cardiovascular diseases, malignity, renal dysfunction and pulmonary diseases. The total lifetime is obtained from hospital records for patients died at hospital and social security institution records for patients having out-of-hospital death.

**Results:** Prognostic data of PE according to concomitant illness are as follows: For those PE concomitant with heart failure (n=151) patients life expectancies for one-year was 81% and five-year was 70%. For patients with malignancies (n=45) life expectancies for one-year was 53% and five-year was 44%. For patients with pulmonary diseases (n=37) life expectancies for one-year was 89% and five-year was 78%. For patients with renal diseases (n=18) life expectancies for one-year was 100% and five-year was 83%. Except PE associated with malignancies others PE concomitant with heart failure, renal disease, and pulmonary disease have similar (p>0.05 for all) and favorable outcome than PE concomitant with malignancies (p<0.0001).

**Conclusion:** The prognosis of incidental diagnosis of PE by echocardiography is the worst for concomitant with malignancies, PE associated with non-malignant diseases including heart failure, pulmonary and renal diseases have similar and favorable outcome.

**Epidemiology**

Tuesday, October 29, 2013, 10:15 AM–11:30 AM
Hall: BISHKEK

Abstract nos: 181-186

OP-181
Predicting the Development of Diabetes in Men with Different Cardiovascular Risk

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**The aim of the study:** Identification and assessment of the risk of diabetes in patients with different risk of cardiovascular complications in cardiology practice.

**Materials and methods:** The study included 300 men aged 40 to 69 years with low-to-moderate (<5% on the scale of SCORE, n=100), high (5-10% on a scale of SCORE, n=101) and very high (>10% on the scale of SCORE, n=99), cardiovascular risk without clinical manifestations of CVD and diabetes. Questioning the patients was conducted by Russian version of a standard questionnaire ARIC (Atherosclerosis Risk in Communities). Predicted risk of developing T2DM in the next 10 years was determined by questionnaire FINDRISC. All patients underwent tool (BP measurement, calculation BMI, waist circumference) and laboratory (lipids, C reactive protein, uric acid, immunoreactive insulin, fasting glucose and 2 hours after taking 75 g of glucose) study.

**Results:** In the studied cohort of men with different levels of cardiovascular risk by SCORE scale in 28% of cases, revealed a low risk of developing T2DM, with 32.3% of those found moderately-high risk, whereas about 40% of men at the time of examination of a very high risk of developing T2DM. Among men with high and very high risk of developing T2DM in 53.8% of cases are of a very high cardiovascular risk. The men in the low-to-moderate cardiovascular risk pre-diabetes is detected in 21% of cases in individuals at high cardiovascular risk in 40% of cases, while 62% of men with very high cardiovascular risk is diagnosed early disorders of carbohydrate metabolism. Predicted risk of diabetes has the highest correlation with the level of fasting and after load blood glucose, immunoreactive insulin, with the cardiovascular risk by SCORE. BP, total cholesterol, HDL cholesterol and triglycerides. Mild but significant correlation was found between the risk of developing diabetes and uric acid, C-reactive protein, HDL cholesterol, left ventricular hypertrophy.

**Conclusion:** Thus, the application of the scale FINDRISC significantly expands the capabilities of primary care physicians to identify at-risk of developing diabetes. In the future, conducting advanced diagnostics in the form of glucose tolerance test to determine the tactics of prevention and medical correction to slow down and prevent diabetes in men with high and high cardiovascular risk.

**General**

OP-182
Increased Epidarical Fat Tissue is a Marker of Subclinc Atherosclerosis in Patients with Psoriasis

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**Background:** Carotid intima-media thickness (CIMT) is a potential indicator of subclinical atherosclerosis in patients with psoriasis. Epiderical fat thickness (EFT) is proposed as a new cardiometabolic risk factor. We evaluated the association between EFT and CIMT in patients with psoriasis.

**Methods:** The present study was cross-sectional and observational, 65 patients with psoriasis and 50 age- and sex- matched control subjects were included the study. Data about echocardiographic EFT, CIMT, anthropometric measurements, and metabolic profile were obtained.

**Results:** The EFT and CIMT were significantly increased (7.3±0.5 mm vs. 6.5±0.5 mm; p<0.001, 0.74±0.11 mm vs. 0.60±0.07 mm; p<0.01, respectively) in patients with psoriasis compared with the controls. EFT significantly correlated with CIMT (r=0.66, p<0.001). In a multiple linear regression model in which EFT was independently associated with age (β=–0.37, p<0.01), BMI (β=–0.49, p<0.01), body mass index (β=–0.33, p<0.01), high-sensitivity C reactive protein (β=–0.39, p<0.01), duration of disease (β=0.35, p=0.03).

**Conclusion:** We have demonstrated increased EFT and CIMT in psoriasis patients, and echocardiographic EFT closely correlated with CIMT in patients with psoriasis.
The echocardiographic assessment of EFT may have the potential to be a simple marker of subclinical atherosclerosis and increased cardiovascular risk in patients with psoriasis.

OP-183
Epidemiological, Clinical Characteristics and Predisposing Factors of Infective Endocarditis: A review of 194 cases
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Objectives: In this study we intended to detect the epidemiological, clinical characteristics and predisposing factors of Infective Endocarditis.

Material-Methods: In this retrospective case study of infective endocarditis (IE), the data of patients hospitalized for definite IE in our cardiology clinic were analysed. A total of 194 patients (128 males, 66 females; mean age 48±18 years) admitted with the modified Duke criteria for definitive IE were included in the study within a period of twelve-years between September 2000 and September 2012.

Results: Infective endocarditis developed on a native valve in 169 (87.1%), a mechanical prosthetic valve in 25 (12.9%). Mitral valve was infected in 82 patients (42.2%), aortic valve in 67 patients (34.6%), tricuspid/pulmonary valve in 15 patients (7.7%) and multiple valves in 30 patients (15.5%) of cases both native and prosthetic valves. Fever was the most common symptom (n=169, 87.1%), while murmur was the most common physical examination finding (n=171, 88.1%). Rheumatic valve disease was the most important predisposing factor (n=43, 22.2%). In 80 patients (41.2%) no predisposing condition was detected. Other common predisposing conditions were having metal prosthetic valve (n=24, 12.4%), renal failure (n=11, 5.7%) and having a permanent pacemaker (n=6, 3.1%). The most predisposing circumstances were dental procedures (n=64, 8.2%) and having an hemodialysis catheter (n=11, 5.7%). No predisposing factors were found in %63.9 (n=124) of cases.

Conclusion: That study stated the predisposing factors and circumstances, as far as epidemiological and clinical characteristics of Infective Endocarditis in tertiary center in Turkey. According to our study the most common predisposing factor was having rheumatic valve disease while the most common predisposing circumstance was having dental procedures.

OP-184
Microbiological Profile, Echocardiographic Characteristics and Early Results of Infective Endocarditis: A Review of 194 Cases at a Tertiary Care Center in Turkey
Umut Kocabab, Esra Kaya, Filiz Ozgerkan Calan
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Objectives: We aimed to evaluate microbiological profile, echocardiographic characteristics and early results of infective endocarditis (IE) in a tertiary university hospital.

Material-Methods: In this retrospective case study of infective endocarditis (IE), the data of patients hospitalized for definite IE in our cardiology clinic were analysed. A total of 194 patients (128 males, 66 females; mean age 48±18 years) admitted with the modified Duke criteria for definitive IE were included in the study within a period of twelve-years between September 2000 and September 2012.

Results: Infective endocarditis developed on a native valve in 169 (87.1%), a mechanical prosthetic valve in 25 (12.9%). Mitral valve was infected in 82 patients (42.2%), aortic valve in 67 patients (34.6%), tricuspid/pulmonary valve in 15 patients (7.7%) and multiple valves in 30 patients (15.5%) of cases both native and prosthetic valves. Transthoracic and/or transesophageal echocardiography showed a vegetation in 161 cases (83%). Causative microorganisms were identified in 110 patients (56.7%) of cases; staphylococci (30.4%), streptococci (22.8%), enterococci (6.7%), and other pathogens (3.2%). Cultures were negative in 84 cases (43.3%). In patients with positive blood culture, antibiotics were prescribed on the basis of susceptibility test results. In patients with negative blood culture, empiric therapy was directed against Gram+ bacteria (glycopeptides, aminoglycosides and beta-lactams). Surgical therapy was necessary in 100 patients (51.7%). Among 194 patients accepted in the study 46 had a total recovery with appropriate antibiotherapy without needing any surgical procedures (23.7%). In-hospital mortality occurred in 38 cases (19.6%).

Conclusions: Our results showed that rapid diagnosis, appropriate antibiotic therapy and surgical treatment improve the outcome in patients with infective endocarditis. But infective endocarditis is still frequently associated with a high frequency of negative blood cultures and high in-hospital mortality.

OP-185
Serum Gamma Glutamyl Transferase and Alanine Transaminase Levels Predict Endothelial Dysfunction in Patients with Non-Alcoholic Steatohepatitis
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Purpose: Cardiovascular diseases are the leading cause of death in patients with non-alcoholic steatohepatitis (NASH). In this study we aimed to investigate whether levels of liver enzymes may reflect severity of endothelial dysfunction in patients with NASH.

Methods: Fifty patients with NASH diagnosed by liver biopsy and 30 healthy controls were included in this study. Fasting blood samples were obtained for measurement of glucose, insulin, cholesterol, triglyceride and liver enzymes. All patients underwent transthoracic echocardiography, brachial artery and carotid artery Doppler ultrasonography to evaluate flow mediated dilatation (FMD) and carotid artery intima-media thickness (CIMT).

Results: Patients with NASH had impaired FMD (4.9±2.8 % to 9.3±4.4 %, p<0.001) and higher CIMT (0.79±0.16 mm to 0.64±0.11 mm, p<0.001) when compared with healthy controls. Linear regression analyses revealed that levels of gamma glutamyl transferase (GGT) and alanine transaminase (ALT) were significantly associated with FMD and CIMT.

Conclusions: Patients with NASH have impaired FMD and increased CIMT when compared with healthy controls. In patients with NASH, levels of GGT and ALT might have predictive value for FMD and CIMT.