(r = 0723). Evidence continues to support an association among periodontal infections, atherosclerosis and vascular disease in different periodontal diagnosis and coronary risk stratification methods.

MS265 MICROALBUMINURIA IN METABOLIC CENTRE OUTPATIENTS

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Aim: To determine frequency of microalbuminuria in metabolic centre outpatients with one or more risk factors for cardiovascular diseases.
Metods: For the examination of microalbuminuria we colleced 2nd morning urine sample. We determined concentration of albumin by immunoturbidimetry (normal value 2.8–22.8 mg/mmol creatinine). Data are expressed (if not stated otherwise) as median (interquartile range). For statistical comparisons we used Wilcoxon unpaired test.
Results: In the period October − November 2008, we measured microalbuminuria in 174 metabolic centre outpatients. 165 (95%) patients were treated hypolipidemic drugs, 124 (71%) patients were on antihypertensive therapy. 82 (47%) were patients with metabolic syndrome. Microalbuminuria was positive in 18 patients (10%); 11 (61%) of them had metabolic syndrome. The difference between microalbuminuria in patients with metabolic syndrome (0.7 [0.4−1.6] mg/mmol crea) and without metabolic syndrome (0.5 [0.3−1.0] mg/mmol crea) was statistically significant ($p < 0.05$ 95% CI 0.0001−1.3). Various other risk factors were: hypertension 68%, waist circuit (males ⩾102 cm, females ⩾88 cm) 48%, triglycerides (> 1.7 mmol/l) 48%, HDL cholesterol (< 1.0 mmol/l for males, 1.3 mmol/l for females) 15%, impaired glucose tolerance 22%, diabetes mellitus 10%.
Conclusion: Low incidence of microalbuminuria in metabolic centre outpatients is probably due to effective farmacotherapy and life-style intervention and certifies positive influence on risk factors of atherosclerosis.
Our plan for near future − to examine microalbuminuria in newly acquired outpatients without any therapy and compare them to patients with established therapy.

MS266 ASSOCIATION BETWEEN CARDIOVASCULAR RISK FACTORS AND PRESENCE AND EXTENT OF CORONARY ATHEROSCLEROTIC PLAQUE AS DETECTED BY MSCT IN EGYPTIAN PATIENTS

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Framingham Risk Score (FRS) uses traditional risk factors (TRF) to categorize patients (pts) according to their risk for cardiovascular events and to establish treatment guidelines.
Aim: To investigate prevalence of coronary artery plaques (CAP) using computed tomography-based angiography (CTA) in Egyptian pts with no history of coronary artery disease (CAD) to evaluate whether TRF are related to prevalence of CAP.
Method: 1200 consecutive pts referred for CTA; pts with history of CAD were excluded, resulting in a cohort of 896. Age of 56.5±10.3 years, with 2.9±1.5 TRF and average FRS was 21.9±16.8. CTA was analyzed and pts without CAP were considered normal; an abnormal CTA is defined in the presence of ⩾1 CAP. These were classified as having obstructive (⩾50%) in 1 or more coronary arteries or non-obstructive (all < 50%).
Results: 43.8% (n = 392) of the pts had CAP; 63.3% of which are obstructive. A total of 32.3% (n = 160/496) non high-risk FRS pts had CAP, reclassifying them to high-risk. 17.8% (n = 88/496) of pts in non high-risk FRS had obstructive CAP. Among high-risk pts 42% (n = 168/400) had no CAP; reclassifying them as low risk. The prevalence of any CAP by the FRS category is shown in Figure 1.

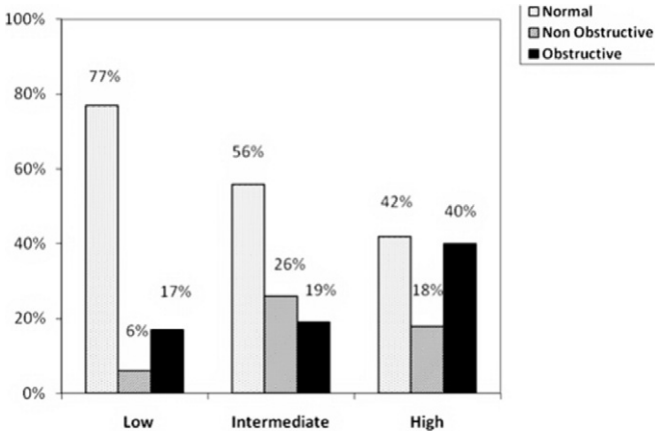

Figure 1. Multislice computed tomography coronary angiography MSCT results reclassify FRS categories.

Conclusion: CTA reclassifies patients in both low and high FRS categories and may further influence clinical decision making.

MS267 C-REACTIVE PROTEIN AND HEMOGLOBIN LEVELS PREDICT FUTURE ADVERSE CARDIAC EVENTS IN PATIENTS WITH CHRONIC STABLE ANGINA PECTORIS

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Introduction: C-reactive protein (CRP) is an established marker of cardiovascular risk. Anemia is associated with worse symptoms and a significant increase in mortality in patients with advanced heart failure. The aim of the present study was to examine the prognostic significance of CRP and hemoglobin (Hb) levels in patients with chronic stable angina (CSA).
Methods: We carried out a 1-year follow-up prospective study in 215 CSA patients undergoing diagnostic coronary angiography. Coronary angiograms were scored according to Sullivan's score, which includes vessel score, stenosis score and extension score. The primary study endpoint was the composite of non-fatal myocardial infarction, unstable angina and cardiac death. Hb and CRP levels were measured at study entry.
Results: 33 patients (15.3%) had adverse coronary events during follow-up. Patients with events had higher CRP levels (2.7 [1.4–5.25] vs 2.1 [1−4.7]; P = 0.03) and lower Hb levels (13.5 [12.1–14.4] vs 14.3 [13.3−15]; P = 0.002) compared with patients without events. After adjusting by confounders, multiple logistic regression analysis revealed that in addition to Hb levels below median (OR 2.7 [1.1 to 6.9]; P = 0.03), CRP levels (0.04), severity of coronary artery disease (P = 0.04) and a history of previous infarction (P = 0.02) were independent predictors of future cardiac adverse events.
Conclusion: Hb levels predict the occurrence of adverse cardiovascular events in patients with CSA, supporting a role of anemia in the development of acute coronary events. Hb, CRP and CAD severity are independent predictors of risk in patients with CSA and provide complementary prognostic information.

MS268 GENDER DIFFERENCES IN THE PREVALENCE OF CARDIOVASCULAR DISEASE RISK FACTORS AND CORRESPONDING 10-YEAR CARDIOVASCULAR RISK, AMONG SUBJECTS WITH METABOLIC SYNDROME

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Purpose: Gender differences in the clustering of CVD risk factors among people with metabolic syndrome (MS) has rarely been investigated. Thus, we sought to evaluate CVD risk factor prevalence and estimated CVD risk in a Greek population.
Methods: A random sample of 824 male and 1199 female subjects with MS (NCEP ATPIII), but without diabetes mellitus or established CVD, was selected from several Greek areas. Several clinical and biochemical markers were measured. Ten-year risk estimates for fatal CVD were calculated.
Results: Women with the MS were older than men (57.6±10.3 vs 55.7±11.1 years, $p < 0.001$). Elevated BP levels and hypertriglyceridemia were more common in men than women (90.0 vs. 85.9% and 86.8 vs. 75.2%, respectively; $p < 0.001$), whereas low HDL-C and abdominal obesity were more common in women (59.1% vs. 65.1% and 83.6% vs. 97.0%, $p < 0.001$). The total number of metabolic criteria was equally distributed between the sexes, with 35.0% of men vs 32.7% of women showing any 3 criteria, 39.4 vs 39.9% any 4 criteria and 25.6 vs 27.4% exhibiting all 5 defining criteria. The 10-year risk for fatal CVD events was almost threefold higher in men (8.0±8.7% vs 3.0±3.8%, $p < 0.001$ using ESC SCORE and 8.6±8.1% vs 3.6±4.2%, $p < 0.001$ using Framingham model).
Conclusions: The MS is influenced by different factors in men and women, with men being at significantly higher risk for CVD. This information can be used for planning a better population-wide strategy for the prevention and treatment of the MetS in both sexes.

MS269 PLASMA AMINOTHIOLS STATUS IN THE POPULATION OF THE ISLAND OF SÃO JORGE (THE AZORES' ARCHIPELAGO, PORTUGAL)

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Hcy, Cys, Cys-Gly and GSH are low molecular weight thiols that play important roles in the metabolism and homeostasis of the organism. An altered plasma aminothiols status can cause oxidative stress, thus contributing to atherogenesis. The aim of this study was to evaluate the plasma levels of total Hcy, Cys, Cys-Gly and GSH, as well as GGT activity in apparently healthy

subjects from the Island of São Jorge, taking into consideration gender and lipid profile. The study group was formed by 73 subjects with no chronic diseases, aged 20 to 60 years, born living in the island of São Jorge. The evaluation of the four aminothiols was carried out by HPLC with an isocratic reverse-phase column using a fluorescence detector. Mean values of GSH (1.8±0.6μM) and Cys (240±35μM) content were under reference values, but Cys-Gly was above. Plasma total Hcy, Cys and Cys-Gly levels, as well as GGT activity were significantly higher in men than in women (respectively, 30%, 7%, 17% and 65%). About 63% of subjects were hyperlipidemic, mainly hypercholesterolemic. Cys concentration was increased by 9% in hyperlipidemics *vs.* normolipidemics. In subjects with altered thiol status men, but not women, revealed a moderate hyperhomocysteinemia. Also Cys-Gly concentrations were significantly higher in men than in women. In spite of being apparently healthy, all subjects (namely men) have depleted antioxidant defenses, indicating high oxidative stress. Alterations in plasma GSH, Cys-Gly and Cys concentrations, taken together, and independently of dyslipidemia, could be considered as early markers of atherosclerosis.

MS270 LABORATORY EVALUATION OF HYPERURICEMIA AND STUDY OF DISEASE'S OUTCOME IN PATIENTS OF THE NORTH GREECE

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Objective: The prevalence hyperuricemia and the patient's compliance to treatment and to dietary recommendations in patients from the Prefecture of Peonia in the Kilkis area in West Makedonia.
Methods: During the last 3 years we performed measurements of the uric acid plasma levels of 3256 people and we found 187 having hyperuricemia. They were 139 men (74.3%) and 48 women (25.7%) with mean age 65.9±3.6, and 61.5±3.1. From them 146, (78%) had suffered in the past from acute single arthritis crisis. Even though diet was recommended to them, only 116 (62%) had a satisfactory compliance to the diet. Laboratory tests and appropriate follow up was performed with repeated measurements of disease's course based on the method of chemiluminencence.
Results: The first obtained measurements following the diet onset were 8.2±0.51 and following the allopurinole addition the values were 4.26±0.98. In contrast with this group the patients who showed no compliance to diet recommendations had: 7.96±1.22 mg and 5.81±1.45 after the allopurinole addition.
Conclusions:
1. We showed that the hyperuricemia is frequent in the healthy population especially to males so we recommend to test for uric acid plasma levels especially in males with non specific symptoms of arthritis.
2. The compliance to diet recommendations is equally important to medication treatment in those patients and should be emphasized both by laboratory and clinical physicians.

MS271 INCIDENCE OF OBESITY OF THE YOUNG AND REGISTRATION OF THE PROGRESSION OF BMI OVER TIME

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Aim: Registration of incidence of obesity of the young and study of BMI in correlation to demographic and socioeconomic factors over time.
Material-methods: The study involved 465 young adults (218 men and 247 women) aged 18−29 years. Their anthropometric parameters were registered (height, BW, waist circumference etc), demographic data were recorded (occupational history, educational, social and economic status)and their biochemical and lipid panel were investigated (Glu, TG, HDL-chol, LDL-chol, total cholesterol etc.). The first registration was done in 1999 (164 subjects), the second in 2003 (155 subjects) and the third in 2007 (146 subjects).
Results: In 1999 median BMI was 24.4 kg/m^2, in 2003 24.9 kg/m^2, in 2007 25.2 kg/m^2. The incidence of overweight and obese according to WHO classification, was 26% and 8% respectively in 1999, 29% and 12% in 2003 and 31% and 13% in 2007. Hypercholesterolemia (200 mg/dl) and hypertriglyceridemia (>150 mg/dl) were diagnosed in 13.2% and 6.2% respectively in 1999 and in 14.8% and 7.6% in 2007. Although in the last two surveys a negative correlation between obesity and educational status came up, there was no relevant statistic correlation between obesity and place of residence or socio-economic status, in neither of the three clinical trials.
Conclusions: It is demonstrated that the last few years there is a significant progressive increase at BMI and a high incidence of overweight and obese young adults. The only parameter that influences the expansion of the problem of obesity is the educational status which emphasizes the need for continuous and intense preventing campaign.

MS272 LIPIDEMIC PROFILE STUDY OF WOMEN AFTER LONG-TERM ADMINISTRATION OF CONTRACEPTIVE PILLS

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Aim: To study the effect of oral contraceptive pills on the lipids metabolism, given the fact that in literature and relevant studies, contradictory opinions are expressed.
Material − method: 53 women were studied, aged from 23 to 45, who used contraceptive pills for a period longer than 3 months. Their lipidemic profile was studied with the use of an automated biochemical − immunological analyzer. The results were compared to those of 60 healthy women, of similar age, who were the control group.
Results: Elevated levels of Lp(a) >30 mg/dl were found in 12 women (22.65%) taking contraceptives, while in the control group only 4 women (6.7%) were found with elevated levels of Lp(a). The LDL-cholesterol and triglyceride average values were 141±39 mg/dl and 133±45 mg/dl in the first group, and 127±36 mg/dl and 130±44 mg/dl in the control group. Further scrutiny revealed lower-limb deep venous thrombosis in 3 women taking oral contraceptive pills.
Conclusions: It is proven, that despite the fact that circulating contraceptive pills contain lower doses of estrogens, their long-term administration affects the metabolism of lipids, inducing an increase mainly in the levels of Lp(a), while the variations in LDL-cholesterol and triglyceride values seem to be smaller. Taking in to consideration the fact that Lp(a) is not only a risk factor for cardiovascular disease and vascular strokes, but also for many researchers an independent risk factor for thromboembolic episodes, a regular and thorough scrutiny of the lipidemic profile of women taking contraceptives for a long period of time is strongly recommended.

MS273 INFLUENCE OF ATHEROSCLEROTIC DISEASE RISK FACTORS IN THE DEVELOPMENT OF ATRIAL FIBRILLATION IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY

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Objective: To evaluate the association of atherosclerotic disease risk factors with the higher incidence of atrial fibrillation in the early postoperative period of elective cardiac surgery.
Methods: Retrospective study carried out in 140 patients, 97 (69%) males, mean age 62 years, submitted to cardiac surgery (coronary artery bypass grafting and/or valvular surgery). The patients were evaluated by continuous cardiac monitorization until the hospital discharge, correlating the main atherosclerotic disease risk factors (advanced age, diabetes, arterial hypertension, smoking and dyslipidemia) and the development of postoperative atrial fibrillation.
Results: Atrial fibrillation occurred in 23 (16%) patients in our population, more frequently occurring in the first day postoperative and in males than females, 19.8% versus 9.3% ($p = 0.2$), respectively. Atrial fibrillation occurred in patients relating to atherosclerotic disease risk factors as: hypertensive and normotensive patients, 18% and 4% ($p = 0.02$); advanced age over 65 and less than 65 years, 30% and 2% ($p = 0.01$); smoking and no smoking, 21% and 11% ($p = 0.08$); diabetes and no diabetes, 18% and 13% ($p = 0.43$); dyslipidemia and no dyslipidemia, 16% and 13% ($p = 0.65$), respectively.
Conclusion: This study demonstrated that arterial hypertension and advanced age were the atherosclerotic disease risk factors more significantly associated with atrial fibrillation in the early postoperative period of elective cardiac surgery.

MS274 RISK FACTOR DIFFERENCES PREDISPOSING TO RECURRENCE AND/OR DEATH IN YOUNG EARLY ONSET CORONARY ARTERY DISEASE PATIENTS

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Objectives: To evaluate differences in coronary risk factors predisposing to recurrence and/or death in early onset coronary artery disease (CAD) patients.
Methods: Coronary risk factor profile of 158 young (⩽45 years) patients with acute coronary syndrome was compared with 31 young (⩽45 years) patients presenting with recurrent acute coronary syndrome and/or death studied from Jan 2008 to Sep 2009 at UCMS-GTB Hospital.
Result: In young, compared to new acute coronary patients, patients presenting with recurrence and/or death were older (41.9±5.1 vs 38.4±5.1 years), had greater prevalence of hypertension (32.3% vs 29.1%), diabetes mellitus (32.3% vs 30.4%), central obesity (54.8% vs 44.8%), family history of premature CAD (48.4% vs 43%), lower high density cholesterol (HDL-C) (76.2% vs 24.6%), increased low density cholesterol (LDL-C) (38.1% vs 31.7%), arcus juvenilis (51.6% vs 43.7%), premature balding (48.4% vs 41.8%) and carotid plaques