Women's Health and Cardiovascular Diseases

3-year follow-up of coronarography patients from Osijek and Split University Hospital Centers

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Aim: Study examined some transitional cardiovascular risk factors in patients undergone coronarography in continental (UHC Osijek) and coastal (UHC Split) Croatian hospitals, resp.
Methods: Data were collected from patients undergoing coronarography since 2007 in Osijek and Split, resp. Data on the outcome of medical care were accessed in 2011 by a questionnaire conducted by a telephone conversation. SPSS statistical program was used for data analysis.
Results: In the group of patients from Osijek there were 67.8 % males and 32.2% females, mean aged 62 yrs and mean BMI 28.9 kg/m^2. The majority (55.6%) were smokers, while 72.2% had arterial hypertension, 65.2% elevated triglycerides and 25.6% diabetes. Angina pectoris was reported in 30% examinees, while a rehospitalization was required in 63.3 % examinees, 25.6% suffered from MI, 15.6% experienced stroke, while 11.1% had CABG surgery. The outcome in 4.4% patients was heart failure and 8.9% died. In the group of patients from Split there were 56.1% males and 43.9% females. Mean age was 73 yrs and BMI was 28.51 kg/m^2. Only 9.8% examinees were smokers. The number of patients with dyslipidemia (35.2%) was significantly lower in Split, while the prevalence of arterial hypertension (71.4%) and diabetes (21.5%) was similar to the patients from Osijek, resp. The percentage of rehospitalization in Split was 28.04%. MI occurred in 3.1%, stroke in 5.2% and 1.6% had CABG surgery. Paradoxically, Split had higher rate of heart failure (23.3%) but similar death rate (11.4%). Mean age of menopause onset in examinees from Split and Osijek (48 yrs, both) was significantly earlier than in general population (51 yrs).
Conclusions: The follow-up study showed that patients undergone coronarography in Osijek had higher rate of rehospitalization, MI and CVI comparing to Split, probably due to difference found in risk factors. On the other side, large prevalence of heart failure in patients from Split holds death rate at similar level.
Keywords: cardiovascular, follow-up, risk factor, coronarography

Risk of metabolic syndrome in highschool students

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This study **aim** to gather relevant epidemiological and biochemical data, providing the information on the prevalence of metabolic syndrome and its signs among adolescents in Bratislava region.

Methods: Project „Respect for Health" represents a cross-sectional, non-interventional study initiated by Bratislava Self-Governing Region. High school students from this region undergo anthropometric measurements and sampling of blood and urine for biochemical analyses. Data on lifestyle, personal and family anamnesis are collected via questionnaires. Data collection started in November 2011 and should continue until December 2012. By now, 818 adolescents of both genders (36,8 % boys and 62,2 % girls), aged 15-to-21 years, has been examined. Study was approved by the Ethics Board of Self-Governing Region in Bratislava. An informed consent signed by parents/legal representative is a prerequisite to participate.

Results: We used Slovak BMI percentile charts (from 2001) to allocate boys and girls into 4 categories. Among boys, 4.85 % were underweight, 75,49 % had normal weight, 9,95% were overweight, and 9,71% obese. From among girls, 7,27 % were underweight, 82,91 % had normal weight, 5,5 % were overweight, and 4,32 % obese. Average age was the same in all categories. General physical condition, expressed as Ruffier index, was poor in obese boys and average in categories of boys with underweight, normal weight and overweight. Among girls, those with normal weight or underweight had average condition, results of overweight and obese showed poor physical condition. Results from blood and urine chemistry are under evaluation.

Conclusions: Data collected in this study should be used to settle preventive measures, focused on lowering cardiometabolic risk in adolescents.

Keywords: metabolic syndrome, cardiovascular risk, adolescent, Ruffer index

Gender-specific distribution of cardiovascular risk factors in patients with ischaemic heart disease

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Aim Ischaemic heart disease (IHD) is one of the major leading causes of cardiovascular death in the developed countries. It is well established, that more women than men die because of IHD. In the framework of the Regional Cooperation for Health, Science and Technology (RECOOP HST) Consortium's Women's Health and Cardiovascular Diseases in Central and Eastern Europe Network we aimed to characterize the distribution of cardiovascular risk factors in women and men patients with IHD.
Methods The study population consisted of patients (118 female, 129 male) hospitalized because of IHD in the Department of Cardiology at the UDMHSC between 1st of January and 31st of March 2007. Diagnostic coronary angiography revealed significant (diameter stenosis ≥70%) coronary artery stenosis in all patients. Major cardiovascular risk factors, relevant laboratory, echocardiographic, coronarographic parameters and discharge therapy were compared using Wilcoxon and Fisher's exact tests.
Results Mean age on admission was significantly higher in women than in men (64.9±9.2 vs. 60.4±10.9 years, P=0.0003). Based on the documented risk factors more women than men had hypertension (75.4% vs. 61.2%, P=0.02) and type 2 diabetes mellitus (38.1% vs. 18.6%, P=0.0007). However, smoking was more frequent among men patients (42.6% vs. 28%, P=0.017). When relevant laboratory parameters were compared, a significantly higher HDL-C (1.4±0.4 vs. 1.28±0.4 mmol/l, P=0.012), a lower GFR (83.6±13.8 vs. 91.8±18.1 ml/min, P<0.0001), Hgb (130.2±12.9 vs. 142.8±15.3 g/l, P<0.0001) values were measured in women. Concerning coronary findings, stenoses of the right and the circumflex coronary arteries were more prevalent in men. In-hospital mortality and drug therapy at discharge did not differ between the two patient groups.
Conclusions Based on the results of our retrospective study differences can be observed in the gender-specific distribution of cardiovascular risk factors in patients with IHD. A more adequate management of hypertension and type 2 diabetes mellitus in women, while smoking cessation in men may have crucial importance in the prevention of IHD.
Keywords: ishaemic heart disease, cardiovascular risk factors, gender.