

41. RISK PREDICTION AFTER PRIMARY PERCUTANEOUS INTERVENTION IN PATIENTS WITH NON-ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION ACCORDING TO LEFT VENTRICULAR EJECTION FRACTION

Authors: **Ilie Ceban, Artiom Surev, Cristina Gheorghiu, Andrei Grib**

Scientific adviser: Abras Marcel, MD, Associate professor, Department of Internal Medicine, Cardiology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Primary percutaneous coronary intervention (pPCI) is the best-known therapy for patients enduring non-ST-segment elevation myocardial infarction (NSTEMI). However, the risk prediction in these patients remains problematic. Hence, reduced left ventricular ejection fraction (LVEF) is the best available predictor of sudden cardiac death (SCD) in survivors of myocardial infarction (MI).

Aim of the study. To evaluate the possible association between demographical, clinical and paraclinical characteristics of a group of patients with NSTEMI who undergo pPCI with LVEF.

Materials and methods. This study included 50 patients with NSTEMI, that were categorized according to in-hospital LVEF measurement into two groups, LVEF \geq 45% (n=32) and LVEF<45% (n=18). We compared baseline characteristics and angiographic results of patients who underwent primary percutaneous coronary intervention stratified by LVEF.

Results. The mean age of study population was 57.9 years-old in first group and 59.5 years-old in the second one, and 84% of all patients were male. There were no significant differences (p>0.05) between two groups of LVEF concerning coronary risk factors as hypertension (68.8% vs 50%), obesity (18.8% vs 22.2%), dyslipidemia (46.9% vs 27.8%), diabetes mellitus (28.1% vs 27.8%) and smoking history (37.5% vs 38.9%). The most infarct related arteries (IRA) in patients with LVEF \geq 45% were the second segment of left anterior descending coronary artery (LAD II; 21.9%) and the second segment of right coronary artery (RCA II; 21.9%), while in patients with LVEF<45%, culprit lesions were found on LAD I and LAD II (33.3%). In addition, door-to-balloon time was less than 72h for 62% of patients (group A) and more than 72h for 38% of them (group B). No significant difference (p>0.05) between groups according to LVEF \geq 45% or <45% was revealed (56.3% vs 72.2% in group A and 43.8% vs 28.8% in group B).

Conclusions. The mean age of the overall study population was lower (<60 years) than previous studies run in this area (>60 years). There were no significant differences for baseline characteristics and angiographic results between two groups of patients stratified by LVEF in patients with NSTEMI who undergo pPCI, included in this study. LVEF is an independent predictor of all-cause clinical outcomes in patients who have undergone pPCI.

Key words: pPCI, NSTEMI, LVEF

42. PARTICULARITIES OF ATRIAL SEPTAL DEFECT IN ADULTS TREATED CONSERVATIVELY AND SURGICALLY

Authors: **Andrei Calistru, Tamara Calistru, Iulia Calistru, Lilea Purteanu, Andrei Grib**

Scientific adviser: Elena Samohvalov, MD, PhD, Associate professor, Department of Internal Medicine, Cardiology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Atrial septal defect (ASD) represents 13% of congenital heart disease (CHD), with a prevalence of 2 cases per 1000 live births. ASD is often asymptomatic until adulthood, with potential presenting complications: arrhythmias, paradoxical embolization, right atrial (RA) dilatation and right ventricle (RV) dilatation, tricuspid regurgitation, right heart failure and

pulmonary hypertension, which can become irreversible and lead to the development of right-to-left shunting (Eisenmenger syndrome).

Aim of the study. To study the patients with atrial septal defect treated conservatively and surgically.

Materials and methods. The study included 98 patients with ASD, women – 66, men – 44, mean age – 45±4 years, that were examined clinically and paraclinically. The patients with ASD were divided into two groups: group I – surgically treated (57.1%), group II – treated conservatively (42.9%).

Results. In 4.2% of cases, ASD was accidentally diagnosed during medical examinations. Clinically, the patients in groups I and II had the following symptoms: dyspnea (35.7% vs 90.5%), palpitations (30.4% vs 64.3%), fatigability (42.9% vs 61.9%), cardialgias (41.1% vs 54.7%), peripheral edema (5.4% vs 11.9%) and haemoptysis in 0% vs 2.4% cases. Echocardiographically, in the patients from group I pre- and postoperative sizes of the RA were from 28 mm to 95 mm (average of 58±2 mm) vs 21 - 62 mm (average of 42±4 mm) and in group II – from 34 mm to 72 mm in average being 49±8 mm. The size of the RV in both groups also revealed significant differences: in group I preoperative: 12 - 60 mm (average of 35±9), postoperatively: 15 - 42 mm (average of 28.6 mm) and in group II from 22 - 47 mm (average of 32±6 mm). The pressure in the pulmonary artery in group I, preoperatively was 30 - 85 mmHg (average of 45.7 mmHg), postoperatively: 28 - 65 mmHg (average of 36 mmHg), and in group II: 24 - 75 mmHg with an average of 42±4 mmHg. Complications in patients with ASD pre- and postoperative: heart failure 91.1% vs 15.9%, pulmonary hypertension 92.8% vs 19.6%, arrhythmias 23.2% vs 5.4%, pneumonia 3,6% vs 25%. Medical treatment in patients with ASD operated and not operated consisted from diuretics (23.2% vs 30.9%), beta blockers (12.5% vs 19%), ACE inhibitors (10.7% vs 21.4%), digoxin (0 vs 28.6%) and anticoagulants (5.4% vs 30.9%).

Conclusions. Patients with surgically treated ASD showed improvement in clinical manifestations, reduced complications, improved echocardiographical indices, and a decrease in the number of administrated doses comparative to the patients treated conservatively.

Key words: atrial septal defect, complications, treatment.

43. ENDOTHELIAL DYSFUNCTION AND RISK OF CARDIOVASCULAR EVENTS IN WOMEN WITH AUTOIMMUNE SYSTEMIC DISEASES

Author: **Uliana Morari**

Scientific adviser: Snejana Vetrila, MD, PhD, Associate Professor, Department of Internal Medicine, Cardiology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Cardiovascular events increase the mortality rate among women with autoimmune systemic diseases. Chronic inflammation is supposed to be responsible for the accelerated development of atherosclerosis. Endothelial dysfunction(ED) has a primordial role in the pathogenesis and clinical evolution of cardiovascular disease.

Aim of the study. To assess the relationship between endothelial dysfunction and the risk of cardiovascular events in women with autoimmune systemic diseases.

Materials and methods. Study group included 20 women with autoimmune systemic diseases, established according criteria of diagnosis, divided into 2 subgroups - 9 with endothelial dysfunction and 11 without endothelial dysfunction assessed by flow mediated dilatation(FMD) of brachial artery using Doppler method. Also we analyzed traditional cardiovascular risk factors - hypertension, dyslipidemia, diabetes mellitus, body mass index(BMI), smoking and family history. C-reactive protein(CRP), athero-plasmatic index(API), ankle-brachial index(ABI) and the intima-media thickness(TIM) of the carotid artery were determined.