

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.

**Results.** The patients mean age was  $50.7 \pm 0.05$  years, disease duration -  $150 \pm 0.05(2-504)$  months. Endothelial dysfunction was found in 9(45.0%) cases from the general group. Hypertension was found in 6(67.0%) and 8(73.0%), dyslipidemia 8(87.0%) and 10(90.0%), diabetes mellitus 3(33.0%) and 3(27.0%), smoking 1 (11.0%) and 1(9.0%), family history 2 (22.0%) and 4(36.0%) in the group with and without endothelial dysfunction, respectively. BMI deviation was more relevant in the group without endothelial dysfunction - 8(72.7%) vs 4 (44.4%) in patients with endothelial dysfunction. The level of CRP in women with dysfunctional endothelium was noted in 10(91.0%) cases vs 8(89.0%). Pathological API was present in 5 (55.5%) of women with ED vs 4(36.3%) in subgroup without endothelial dysfunction. Analyzing the values obtained by ABI and TIM, we observed the predominance of abnormal data in the endothelial dysfunction subgroup.

**Conclusions.** Endothelial dysfunction detected by flow-mediated dilatation using Doppler method suggests the high risk of cardiovascular events in patients with autoimmune systemic diseases.

**Key words:** endothelial dysfunction, cardiovascular events, women, systemic autoimmune diseases.

#### 44. SIGNIFICANCE OF SLEEP APNEA SYNDROME IN WORSENING OF CARDIAC PATHOLOGY

Authors: **Sabina Racila-Iatco, Elena Samohvalov, Andrei Grib, Carina Rusanovschi, Eugen Grama**

Scientific adviser: Liviu Grib, MD, PhD, Professor; Grejdieru Alexandra, MD, PhD, Associate professor, Department of Internal Medicine, Cardiology

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

**Introduction.** Sleep apnea (SA) is a major public health problem, with 5% prevalence of the active population aged between 30 and 60 years - 2% females and 4% males with severe cardiovascular, pulmonary, neurological and metabolic consequences. SA is found in 30% of hypertensive persons, in 19-20% of patients with myocardial infarction history; in 18 - 42% cases patients have cardiac arrhythmias: sleep association with marked sinus arrhythmias (93%), extreme sinus bradycardias (40%), asistolias (33%), atrioventricular blocks (13%), ventricular arrhythmias (66%) and TV (13%), and ventricular extrasystoles (40%). Approximately 80% of patients with obstructive sleep apnea syndrome are overweight or obese.

**Aim of the study.** Study of cardiac pathology in patients with sleep apnea.

**Materials and methods.** In the study, 39 patients with sleep apnea were admitted to the Cardiology Institute in January-December 2017 with various cardiac pathologies, 71.8% men, 28.2% women, the ratio being 2.5: 1, with an average age  $53 \pm 4$  years.

**Results.** Predominant risk factors in SA patients were: smoking (53.8%), obesity (74.4%), dyslipidemia (43.6%), diabetes mellitus (17.9%). Associated SA cardiac pathologies were meat in 82.6%, angina pectoris (AP) in 64.1%, MI (23.1%), stroke (7.7%), heart failure(NYHA) of different degree (74.4%), pulmonary hypertension (38.5%) and left ventricular hypertrophy (69.2%). Common ECG complications: arrhythmias in 100% (atrial fibrillation (33.3%), supraventricular extrasistoles (41%), ventricular extrasistoles (33.3%) and cardiac blocks in 10.3%. Clinical manifestations were present by: snoring (94.9%), nicturia (61.5%), sleep fragmentation (59.0%), sleep stifling (43.6%), and daytime somnolence (33.3), and morning headache (28.2%), memory impairment in 20.5%. According to the SA classification according to the apnea-hipopnee index was: mild in 20.5%, medium in 23.1% and severe in 46.2%.

**Conclusions.** In patients with sleep apnea, worsening of pre-existing cardiovascular pathologies with the development of major cardiac events, rhythm disturbances and conductivity which negatively influenced the progression and prognosis of these patients was diagnosed.