227. RIGHT VENTRICULAR VOLUME OVERLOAD AT A PATIENT WITH ATRIAL SEPTAL DEFECT, CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND SUBSEGMENTAL PULMONARY EMBOLISM

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Background. Most cases of RV failure follow existing or new-onset cardiac or pulmonary diseases or a combination of both, which may increase RV afterload, reduce RV contractility, alter RV preload or ventricular interdependence.
Case report. A 71-year-old man was noted to be having shortness of breath. The electrocardiogram shows – sinus rhythm, heart rate 90 bpm, vertical heart axis, tall P wave and incomplete right bundle branch block. At Echocardiographic examination of the heart: severe dilatation of the right heart chambers, right ventricular systolic dysfunction, abnormal septal motion with D-shaped left ventricle, severe tricuspid regurgitation and severe pulmonary hypertention. All these ECG and EchoCG features are suggestive of right ventricular overload. Having elevated 5 times elevated D-dimers, first we have suspected a pulmonary embolism. Pulmonary angioCT reflect a subsegmental pulmonary embolism complicated with infarction-pneumonia. Also the spirometry indicates severe obstruction with hyperinflation. A further EchoCG investigation from an intermediate Echo window denotes an atrial septal defect "sinus venosus"~ 10 mm. The patient has been discharged with recommendation to visit a cardiac surgeon and to follow prescribed treatment with bisoprolol, spironolactone, losartan, torasemide, isosorbide mononitrate, warfarin, inhalator corticosteroids and antibiotics.
Conclusions. Our patient has two important diseases that can cause the right heart failure: first is the atrial septal defect with bidirectional shunt, wich leads to chronic volume overload and RV dilation and the the second is chronic obstructive pulmonary disease (COPD) wich is the most prevalent cause of respiratory insufficiency and cor pulmonale. At this patient, also an additive effect to right heart failure has the subsegmental pulmonary embolism.
Key words: right heart failure right heart overload atrial septal defect hronic obstructive pulmonary disease pulmonary hypertension

228. DYSRHYTHMIA IN PATIENTS WITH ATRIAL SEPTAL DEFECT

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Background. Atrial septal defect (ASD) accounts for 13% of congenital heart disease (CHD), with an incidence of 2 cases per 1000 live births [Vick G.W., 2017]. Until adulthood, ASD are usually asymptomatic, with further development of complications, more frequent atrial dysrhythmias and paradoxical embolization. Atrial tachyarrhythmia, including atrial fibrillation and atrial flutter, are detected preoperatively in approximately 20% of adults with

ASD. In the case of plastics made after 40 years, the postoperative risk of association with atrial fibrillation or flutter may occur [Webb G., 2006]. Late complications of large ASD may be: right ventricular dilatation, tricuspid regurgitation, right heart failure, and pulmonary hypertension, which may become irreversible and lead to the development of Eisenmenger syndrome [Connolly H., 2017].

Case report. Study of rhythm disorders in an adult patient with atrial septal defect. Patient X, 42 years, woman, was admitted to the surgery department of congenital heart malformations at the Heart Surgery Center, the Republican Hospital "Timofei Moșneaga" for investigations and subsequent evaluation of the surgical correction of CHD. Internal charges: dyspnoea at rest, fatigue, palpitations at physical exercise, peripheral oedema, pain in the right hypochondria, bloated feeling. From anamnesis: is considered sick from childhood, she had reduced exercise tolerance, frequently endured respiratory infections. Palpitations and fatigue occurred during the last 10 years, but did not contact the doctor. In 2018, after pneumonia, paroxysms of tachyarrhythmia appeared, which led to appearance of symptoms and signs of heart failure, which conditioned the address to the family doctor and the cardiologist from the district, which suspected CHD, after investigation and referred she to cardiovascular surgeon. At the objective examination: severe general condition, pale-pink teguments, acrocyanosis, peripheral oedema, cardiomegaly, systolic cardiac murmur in the left parasternal region, increased II heart sound on the pulmonary artery, hepatomegaly. Pulse oximetry: saturation with O2 - 85%. Paraclinical investigations. Electrocardiogram: Atrial fibrillation with heart rate 150-85 b / min. Right axis deviation. Signs of right ventricular hypertrophy. Chest X-ray: pruning of peripheral pulmonary vessels, pulmonary wires with signs of pulmonary hypertension, elevated cardiac apex due to right ventricular hypertrophy, prominent pulmonary outflow tract, cardiothoracic index - 50%. Echocardiography: dilation of the right atrium and right ventricle, left ventricle at the lower limit of the norm; ASD "ostium secundum" with left-right jet, a ASD of the type "superior venous sinus" is not excluded; pulmonary artery dilated at ring and trunk, systolic pulmonary artery pressure increased - 70 mm Hg; in the pericardium 2-3 mm of fluid around the heart. Cardiac catheterization: atrial septal defect with left-right shunt, severe pulmonary hypertension. Clinical diagnosis: Congenital heart disease, atrial septal defect "ostium secundum" with left right jet. Severe pulmonary hypertension. The patient was prepared preoperatively and performed the surgical correction of the malformation, with the improvement of the postoperative condition, but with the prescription of the antiarrhythmic drugs due to the irreversible dysrhythmias due to the remodeling of the heart.

Conclusions. In patients with ASD commonly develop supraventricular cardiac dysrhythmias (in 1/5 of patients) including atrial fibrillation, atrial flutter, and premature atrial and junctional contractions. Late ventricular disorders can develop, which can be fatal, caused by pulmonary hypertension and VD dilation. Early surgical correction will prevent cardiac remodeling and the development of dysrhythmias.

Key words: Atrial septal defect, dysrhythmias, congenital heart disease.