



**Fund “Nauka” Project № 19041 Resume – Competition-Based Session 2019:**

“Right ventricular function in patients with heart failure”

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Heart failure (HF) is one of the leading problems in the modern cardiology, which is characterized by a constantly increasing frequency worldwide. Along with the diagnostic methods known so far, the contemporary medicine is constantly looking for innovative approaches for early detection and prevention of HF clinical manifestations. The aim of the present study includes the development of complex diagnostic and therapeutic strategies, which limit unnecessary rehospitalizations and optimize the effect of treatment in patients with Right HF. The target group of patients included 150 subjects diagnosed with HF, of which 100 diagnosed as Right Ventricular (RV) dysfunction because of Left HF, and the remaining 50 with Left HF without RV dysfunction- control group. For 6 months, the patients will be monitored on an outpatient basis in a specialized office. For the first time in Bulgaria, the serum level of sCD146 – a biomarker with proven diagnostic value for venous congestion in combination with NT-proBNP that reflects the severity of HF, will be examined. In addition, biochemical parameters as well as urinary ion concentration will be examined to assess diuretic resistance. RV function in both groups of patients will be assessed by applying modern echocardiographic techniques – deformation parameters and 3D-echocardiography. The functional capacity of the patients will be assessed by a 6-minute walking test (6 minutes walking test - 6MWT), and in case of impossibility to perform – by a 4-meter walking test. Quality of life and psycho-emotional state will be assessed through – Kansas City Cardiomyopathy Questionnaire (KCQ), 5-level European Quality Questionnaire (5, EQ5), visual analogue scale (VAT), Patient Health Questionnaire (PHQ9).

The expected results from the study are improvement of clinical condition and reduction of congestion in the patients, therefore, improving their quality of life and functional capacity, and reducing the unneeded rehospitalizations for worsening HF. Thus, this will reduce the HF burden on the patients' families and of the society.