Echo parameters on top of natriuretic peptides and clinical approach could reduce heart failure re-hospitalizations

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Background & Aim: It is well known that the latest concern of medical community is to identify the predictor factors for heart failure decompensations, in order to avoid undesirable hospitalizations. Identification of predicting factors for HF decompensations remains elusive with current clinical (symptoms, congestion score), biochemical (natriuretic peptides) and imaging (left ventricular ejection fraction, LV filling pressures and pulmonary B-lines) parameters. B lines and LV ejection fraction added to NT pro BNP could predict HF patients outcome and re-hospitalization risk. Thus, the aim of this retrospective study was to point out predicting factors for HF decompensations.

Methods & Results: 138 HF outpatients were included with a median follow-up of 24 months. Management was guided by current HF guidelines. Every patient went through a complete clinical exam including 6 MWT, standard transthoracic echocardiography focused on filling pressures parameters and B lines identification by pulmonary ultrasound. Biochemistry included serum creatinine and NT-pro BNP. Mean age of the group population was 70 years and 62% were men. As it concerns the etiology of HF, valvular disease was the most common (46%), followed by ischemic heart disease (33%) or a mix between them (9%). 50% of the patients were in III and IV NYHA class. Thirteen patients (9%) died during follow-up period. The advanced age, low weight, short distance in 6 MWT and advanced NYHA class correlated with death. NYHA class severity correlated with LV EF, ESV, LVOT VTI, the number of B-lines and also with the levels of NT-pro BNP. The number of HF decompensations were linked to the presence of high blood pressure, abnormal creatinine level, low TAPSE and advanced NYHA class.

Conclusion: B lines, LVEF, ESV and NT-pro BNP added to NYHA class approach could reduce re-hospitalizations in HF outpatients. Also, a good control of the blood pressure and renal function could decrease the risk of HF decompensations.

Biography
Cornelia Zara is a Cardiologist at Theracardia, Romania. She has a keen interest in heart failure patients. Her specialties are in Cardiology, Cardiac Ultrasound and Vascular Ultrasound.

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