Abstract: **P113**

**NT-proBNP levels in patients with type 2 diabetes mellitus: data from city hospital registry**

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Introduction: Type 2 diabetes mellitus (T2DM) is associated with the early onset of cardiovascular (CV) complications, and heart failure (HF) in T2DM is one of the most frequent CV complications. In turn, levels of NT-proBNP used for the diagnosis of acute and chronic HF, in particular, HF with preserved and mid-range ejection fraction (EF), and levels of NT-proBNP are established as a risk factor for CV disease and mortality in patients with T2DM.

Purpose: To determine the levels of NT-proBNP among patients included in the register of patients with T2DM admitted to the City Hospital.

Methods: In total, 148 in-hospital patients with T2DM were included in the register. 57.3% female, 67.3±11.9 years (M±SD), 50 [40; 58]% left ventricular EF, 39.7% EF <40%. Reasons of hospitalization: 29.2% decompensation of T2DM, 25.8% acute decompensation of HF, 14.6% acute coronary syndrome (ACS), 13.5% acute inflammatory diseases, 4.6% hypertension urgency, 2.2% paroxysm of atrial fibrillation and decompensation of liver cirrhosis, 7.9% were hospitalized as planned. 6.7% of patients were without a history of cardiovascular disease. The diagnosis of T2DM based on the history and glycemic profile. NT-proBNP levels were assessed at 1-3 days after admission.

Results: The median NT-proBNP level was 720 [100; 2010] pg/ml. Among 66.3% patients were with a diagnosis of HF in admission, the median level of NT-proBNP was 900 [135; 2500] pg/ml. The level of NT-proBNP less than 125 pg/ml was in 28.8% of patients diagnosed with HF. In the diagnosis of admission, HF was not present in 19.1% of patients with T2DM. The median level of NT-proBNP in them was 100 [75; 680] pg/ml. The level of NT-proBNP over 125 pg/ml was found in 9% with the median level of NT-proBNP 730 [545; 1365] pg/ml. In patients admitted with ACS, the median NT-proBNP level was 660 [130; 2500] pg/ml, in 17.6% NT-proBNP levels were less than 125 pg/ml.

Conclusions: The pilot results of the analysis of the register database indicate that the determination of NT-proBNP among patients with HF in diagnosis may allow it to be excluded in 28.8%, and prevent polypragmasia. In turn, a detailed analysis of patients with a level of NT-proBNP above the reference values, in accordance with the algorithms of diagnosis of HF, including the assessment of clinical and instrumental data (history, symptoms and signs of HF and echocardiography) can allow to diagnose HF to 9% of patients who did not have it in the diagnosis.