

continued to receive dialysis than among patients diagnosed with CVD. Dialysis patients with CVD who died within 30 months of prospective follow-up had 39.6% more deaths than those without CVD. Survival in patients with CVD was 0.44 [95% CI 0.34–0.55], and in patients without CVD it was 0.67 [95% CI 0.55–0.78].

**Conclusion.** More than 80% of dialysis patients with CKD die due to cardiovascular disease. The

main place in the structure of mortality is occupied by sudden cardiac death, which is the cause of death of more than 60% of deceased patients. Cardiovascular comorbidity adversely affects the survival of dialysis patients in Uzbekistan. In dialysis patients without cardiovascular disease in our country, the survival rate is 33% higher than in patients with CVD.

## CENTRAL HEMADINAMICS INDEXES IN CORONARY ARTERY DISEASE ON THE BACKGROUND OF TYPE 2 DIABETES MELLITUS AFTER COVID-19

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**Aim of the study** was to evaluate functional state of the central hemodynamic indexes in patients with coronary artery disease (CAD) and type 2 diabetes mellitus (T2DM) who underwent Covid-19.

**Material and Methods.** 65 patients with coronary artery disease and T2DM after Covid-19 (Group I) and 65 patients with CAD and T2DM (Group II) were enrolled in this study. Group I patients aged 45–73 years, mean age  $62.4 \pm 12.9$  years; male=48% and Group II patients aged 41–76 years, mean age  $63.2 \pm 14.0$  years; male=46%. All anthropometric, laboratory and instrumental data were obtained. Functional state of the central hemodynamic indexes were assessed using echocardiography. All statistical analysis were performed by SPSS 26.0 software (IBM, USA).

**Results.** There were not statistically significant changes between groups in terms of left atrium size, opening of the aortic valve and size of root of aorta ( $P > 0.05$ ). However, when we compared end-diastolic size of the left ventricle, Group I tended to have greater level of this index than Group II ( $56.28 \pm 22.0$  mm vs.  $45.18 \pm 20.5$  mm,  $P < 0.001$ ). When it comes to end-systolic size of the

left ventricle, there were statistically significant changes between groups and Groups I had greater level of this index than Group II ( $42.15 \pm 16.2$  mm vs.  $35.58 \pm 15.5$  mm,  $P < 0.01$ ). As far as the end-diastolic volume is concerned, Group I had greater size than Group II ( $185.25 \pm 42.0$  ml vs.  $127.68 \pm 34.0$  ml,  $P < 0.001$ ). When we analyzed ejection fraction, patients with CAD and T2DM after Covid tended to have lower level of this parameter than those without Covid-19 ( $48.2 \pm 8.7$  % vs.  $52.9 \pm 9.6$  %,  $P < 0.05$ ). When we analyzed inter septal thickness and posterior wall thickness, there were not statistically significant changes ( $P > 0.05$ ). When we analyzed men and women separately, there were not any significant changes between sex.

**Conclusion.** Patients with coronary artery disease and type 2 diabetes mellitus after Covid-19 had some deteriorations than those without Covid-19. Apparently, Covid-19 affects not only endothelial function of the vessels but also completely hemodynamic parameters of patients with coronary artery disease and type 2 diabetes mellitus. Encourage of patients to get vaccinations is crucial to prevent cardiac complications.