

**INTRODUCTION:** The issue of renal lesions in infective endocarditis (IE) needs detailed investigation, since the IEs incidence is increasing, mortality stays high, and renal complications, which occur in most patients, have massive contribution in outcomes. Mechanisms of renal lesions are multiform, it could be different variants of acute kidney injury (AKI) and acute kidney disease (AKD) that accompanies septic process, massive antibacterial therapy and/or surgery as well as chronic, mainly immunocomplex lesions. There is no literature data on frequency and features of AKD in patients with IE.

**METHODS:** 209 patients with verified IE (DUKE 2009, 2015), hospitalized and treated in city clinical hospital named after V.V. Vinogradov in Moscow from January 2010 to June 2018, were included in the study. All patients were performed bacteriological and 81 (38,8%) parallel one-moment biomolecular (PCR or PCR with follow-up sequencing) tests. Kidney function was assessed using CKD-EPI (Chronic Kidney Epidemiology Collaboration equation) formula. AKI and AKD were diagnosed according to current guidelines (*KDIGO Clinical Practice Guideline for Acute Kidney Injury 2012*) and the work group consensus (*Acute kidney disease and renal recovery: consensus report of the ADQI 16 Workgroup 2017*).

**RESULTS:** Median duration of the decrease in kidney function was 9 (6-16) days, AKD was diagnosed in 133 patients (63,6%). Patients with AKD did not significantly differ in sex (male/female ratio in group without AKD was 1:1,8), age (median age in group of patients with AKD was 55,4±19,5 and in group without AKD 54,1±19,2 years [p=0,68]). Analysis of associations with cardiovascular diseases and other concomitant pathologies did not show any significant differences in two groups except for history of chronic kidney disease (CKD) (45,1% in group with AKD vs 31,6% in patients without AKD, [p=0,05]). Patients with AKD had longer duration of a disease (57,5±44,2 and 45,8±36,1 days, respectively, [p=0,047]) including duration of hospitalization (31,6±20,9 and 19,3±16,7 days, respectively, [p<0,001]). In clinical features analysis there was a prevalence of fever (94,7% vs 85,8% [p<0,05]), and backpain (16,5% vs 5,3% [p<0,05]) in patients with AKD. AKD was more likely to be present in patients with multiple valvular involvement (12,0% vs 3,9% [p=0,051]), other associations with vegetations' localization weren't found. AKD was associated with use of aminoglycosides (74,4% vs 57,9% [p<0,01]), ansamycins (24,8% vs 13,2% [p<0,05]), glycopeptides (74,4% vs 57,9% [p<0,01]). Independent predictors of development AKD in patients with IE were history of CKD (OR 2,2; 95%CI 1,17-4,15; [p=0,015]) and vancomycin prescription (OR 1,87; 95%CI 1,01-3,51; [p=0,051]). Outcomes analysis showed that 49 (36,8%) patients had renal function recovery to the baseline level, 32 (24%) patients with AKD died in the hospital, 1 (0,7%) had CKD after AKD and 2 (1,4%) with CKD had the stage progression. Renal replacement therapy was held in 3 (2,2%) patients.

**CONCLUSIONS:** AKD is present in more than half patients with IE and has specific clinical associations. Yet, unlike in AKI patients, we weren't able to find any significant data on the influence on the unfavorable prognosis in AKD group. However segregation of AKD patients group may help distinct the influence of certain pathological mechanism from the broad spectrum of the nephropathies in IE.

SP246

#### PREVALENCE, CLINICAL FEATURES AND OUTCOMES OF ACUTE KIDNEY DISEASE IN INFECTIVE ENDOCARDITIS

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