Objective: The aims of this study were to evaluate atrial electromechanical delay (AEMD) of patients with chronic obstructive pulmonary disease (COPD) in acute and stable periods and echocardiographic changes of these patients.

Patients and Methods: A prospective cross-sectional study. Setting: Kars Harakani State Hospital Subjects: 45 (22 females, 23 males) patients with acute COPD exacerbation and the control group was stable period of the same patients. Interventions: The first echocardiography was performed in the first 24 hours. The second echocardiographic examination was performed after 3-month. Main outcome measures: Atrial conduction times and systolic-diastolic functions of the right-left heart were evaluated conventional and tissue Doppler Imaging. Plasma levels of CAR and other inflammatory markers were recorded. Statistical analysis was carried out using SPSS software.

Results: At the end of 3-month, lateral/tricuspid, lateral/mitral and septal AEMD were significantly reduced; right ventricle basal, mid and vertical diameters, tricuspid annular plane systolic excursion, Amax tricuspid, tricuspid regurgitant velocity, systolic pulmonary arterial pressure and systolic motion tricuspid; left atrium diameter, left ventricle end-diastolic diameter, interventricular septum thickness, mitral Ea/Aa ratio, systolic motion mitral, systolic motion septal and heart rate differed; CRP, CAR, and neutrophil to lymphocyte ratio were significantly reduced.

LITERATURE