**SHORT TERM LOW DOSE ATORVASTATIN THERAPY IMPROVES ENDOTHELIAL DYSFUNCTION IN NORMOLIPIDEMIC PATIENTS WITH PRESERVED EJECTION FRACTION HEART FAILURE**

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Heart failure with preserved ejection fraction (HFpEF) includes about half of heart failure cases that impose a heavy burden on the country’s health system. Despite wide classic medicinal prescription and use of various medical devices in HFpEF patients, we have not yet to find an evidence based therapy. Recently, endothelial dysfunction has been considered as a novel therapeutic target in patients with heart failure. The aim of this study was evaluating the effect of Statins on endothelial function of patients with HFpEF.40 patients referred to echocardiography clinic of Imam Khomeini hospital of Ahvaz Jundishapur University of Medical Sciences were included in randomly matched clinical trial. Clinical and echocardiographic criteria for HFpEF and normal coronary angiography were found in all patients. Patients did not have indication for statin therapy and also any kind of the statins were not used before the study. Flow mediated dilatation (FMD) of brachial artery were measured in both groups, Patients were randomly assigned to placebo (20 patients) or Atorvastatin at the dose of 20 mg daily (20 patients) in addition to their current drug treatment for 2 months, after that the FMD was measured again in the patients, data were analyzed. There was a significant improvement of FMD in Atorvastatin but not in the placebogroup,+41.5% and +18.25% respectively (P<0.001).LDL level in atorvastatin group was significantly reduced after treatment, but there was no significant change in LDL level of placebo group .The change in FMD was not significantly correlated with the decrease of serum LDL in both groups. This study showed that Atorvastatin has beneficial effects on the vascular endothelial function of HFpEF without relation to lipid lowering.