Abstract
Serum troponin T level in COPD (Chronic Obstructive Pulmonary disease) exacerbation and its correlation with quality of life, airway obstruction and COPD exacerbation rate.

**Background:** COPD is a disease estimated to become the third leading cause of mortality in the world till 2020. copd is associated with systemic inflammation and this inflammation can cause extrapulmonary events such as cardiovascular events.

In COPD exacerbation due to hypoxia and systemic inflammation and also due to IHD (Ischemic Heart Disease) incidence and exacerbation cardiac troponin T level maybe elevated. we studied serum troponin T level in COPD exacerbation and its correlation with quality of life, airway obstruction and COPD exacerbation rate in the previous year in patients.

**Methods:** a cross-sectional study was carried out through 97 hospitalized COPD patients in Ardebil Imam Khomeini hospital during one year and serum troponin T was measured, then CAT and MMRC tests were completed by patients and all gathered demographic and spirometric data were entered to SPSS and analyzed.

**RESULTS:** serum troponin T level in 90 percent of patients was high and a positive correlation was found between troponin T and CAT score (p: 0.01, r: 0.30)

Between FEV1 and troponin T, MMRC and smoking (pack/year) a negative correlation was found respectively r:-0.50, p: 0.000 and r: -0.62, p: 0.000 and r:-0.21, p: 0.03. But no correlation was found between serum troponin T levels and COPD exacerbation rate in previous year (p:0.24).

**Conclusion:** this study showed that IHD outbreak and exacerbation can be one of the causes of COPD exacerbation, thus, subclinical ischemia should be noted in evaluation of COPD exacerbation.

**Key words:** COPD, cardiac troponin T, COPD exacerbation, Ischemic Heart Disease