

## **The relationship between Heart-type fatty acid binding protein (H-FABP) and echocardiogram findings based on right ventricular function indexes in COPD patients**

### **Abstract**

**Background and Objective :** COPD is a chronic obstructive pulmonary disease with the limited flow of air that is not completely reversible. In some studies, there is an impressive relationship between RV function, the prognosis of disease, daily activity and high serum H-FABP levels in COPD patients. The echocardiogram findings may provide more information about the prognosis of disease in acute COPD patients.

**Methods:** The 50 patients were included according to gold standard criteria from American Thoracic Society (ATS) with no heart disease history. The 34 healthy donors were included as a control group. 3 ml whole blood was collected into a no-coagulative treated tube from anyone in fasting state. The serum level of H-FABP was measured using ELISA kit. The echocardiography results were interpreted by cardiologists and the questionnaire forms were filled according to study's indexes.

**Results:** There was a significant relationship between smoking history, SPAP, RV Basal Diameter (RVBD) and RV Mid Diameter (RVMD) ( $P < 0.05$ ). The comparative analysis between gold standard criteria and SPPAP, RV wall thickness and RV basal Diameter showed a significant correlation between all parameters ( $P < 0.05$ ).

**Discussion:** According to the correlation between H-FABP serum level and echocardiography parameters such as SPAP, RVBD, and RVMD in COPD patients, this marker would be considered as a diagnostic value in disease management

**Keyword:** COPD, H-FAPB, Echocardiography