

ABSTRACT

BACKGROUND:

COPD is a major cause of morbidity and mortality. It is the third leading and cardiovascular disease per se is high among COPD patients but the irony is that it often goes unnoticed because of nonspecific signs . The aim of the study was to find out the association of cardiac Troponin I levels in acute exacerbation COPD and its prognostic significance.

OBJECTIVES:

To evaluate the incidence of cardiac troponin I levels in acute exacerbation COPD patients admitted in our hospital ICU & Medical wards and to study the association of need for ventilator support , duration of hospital stay , and in hospital mortality as well as morbidity .

METHODS:

The study was a prospective study carried out in one year duration in our hospital Government Mohan Kumaramangalam Medical College and Hospital Salem, Tamil Nadu, India ,and blood levels of cardiac troponin I levels were obtained within 24 hours . A level above 0.017 microgram/ml was taken as positive. The following data was also recorded such as age , sex , smoking habits , tobacco Usage, comorbid conditions , clinical signs and symptoms , and investigations like ABG, ECG, ECHO, X Ray chest, PaSP, LVef, PEFr, FEV1/FVC . Statistical analysis was done and analyzed and tabulated.

RESULTS:

Among the 60 patients 30 were assigned in the acute exacerbation COPD group and 30 were in the stable COPD group. In acute group males were 23 and females were 7 and in stable group 23 males were there and females were 7 in number. Cardiac Troponin I was positive in 7 cases in the acute group whose percentage falls on 22 % , none of the stable cases were proved positive. Thus this **proves statistical significant association between cardiac troponin I positivity and need for ventilator support ,duration of hospital stay, PaSP, PEFr , FEV1/FVC, ABG , abnormal ECG , ECHO , poor LVef , thereby causing increased cardiovascular morbidity as well as mortality**

CONCLUSION:

Cardiac troponin I was significantly positive in subset of patients who were in acute group . These patients had longer duration of COPD, higher incidence of Ischaemic Heart Disease , higher need for ventilator support (that too noninvasive ventilation) , increased ICU stay , and death among the trop I positive patients was found to be statistically significant . Thus the aim and the objectives of the study of trop I as a prognostic marker in acute COPD is met with .

Key words :

COPD Exacerbation ,Troponin I , Cardiovascular Morbidity, Mortality.