Title: Degree of LVEF with respect to severity of COPD

Body: Background: Cardiovascular diseases are important co morbidity in patients with COPD. Detection of the presence of Heart Failure with respect to severity of COPD provides valuable information regarding necessary therapeutics. Aim of Study: The primary aim of this study was to determine the quantum of LVEF, which is an indicator of left ventricular function, in relation with the severity of the COPD as measured by the FEV1. Methods: Study includes 112 patients of COPD admitted in the Chest Unit of the hospital, which is a tertiary care centre. All the patients were subjected to thorough history, clinical examination, investigations- ECG, 2-D ECHO of heart, ABG, RFT, LFT, CBC, RBC etc. were done and datas were analysed. Results: Most patients were elderly with mean age of 62.77 years. 53.6%(60/112) of patients categorized in GOLD STAGE 1,2 had mean LVEF 59.07(SD-10.52,SEM-1.552),while 46.5%(52/112) of those in GOLD STAGE 3,4 had mean LVEF 53.55(SD-8.4,SEM-1.330). This difference between both groups was significant statistically T test (P=0.009)(CI= -9.643 – -1.388),Pearson correlation coefficient 0.363 (p=0.001). Conclusion: The study clearly indicate that severity of the COPD as measured by the FEV1 is directly related to the severity of the left ventricular function as measured by LVEF.