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Title: Left heart dysfunction in COPD- Ignored combination

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Body: Cardiovascular alterations are among the most frequently observed and constitute majority of this morbidity and mortality. Objectives-To look for left heart dysfunction in COPD cases as it is routinely missed in routine practice. Methods- This study had 50 patients of COPD from the outpatient and indoor of KN chest Hospital, Jodhpur. These patients belonging in majority to moderate (II) and severe (III) GOLD(Global Initiative on obstructive Lung Disease) stages were analyzed by Blood profile, BMI, Resting oxygen saturation, CX Ray, Spirometry, ECG and Echocardiography. Main objective was to observe cardiovascular effects in these COPD patients. The statistical analysis was done using Chi Square and Student 't' test. Results- Maximum patients had Emphysema predominant on CX ray, BMI was low, CRP was raised and were hypoxic, belonged to MMRC grade II and III with low Hemoglobin and Hematocrit. The chief cardiovascular alterations were LVDD (56%), Pulmonary hypertension (48%), Right Ventricular enlargement (46%) and Right atrial enlargement (32%) while LVSD (18%), LA enlargement (10%), LVH (10%) and Cor Pulmonale (18%). These changes were significantly associated with the stage of COPD and increasing MMRC grades of dyspnea. Conclusions- The cardiovascular alterations in COPD are far too common especially LVDD, which remains grossly unmanaged. Diastolic dysfunction should be sought actively in COPD besides the right sided changes and pulmonary hypertension. Both can give rise to clinical worsening and exacerbation in COPD. Most correctable factor is Hypoxia. Treatment of condition is rewarding. So all patients of COPD especially of Moderate and Severe stages should have thorough Cardiovascular check up and Holistic management.