

<i>University of Baghdad</i>				
<i>College Name</i>	<i>MEADICIAL</i>			
<i>Department</i>	<i>respiratory medicine</i>			
<i>Full name as written in passport</i>	<i>Shatha Salman Kadhim</i>			
<i>e-mail</i>				
<i>Career</i>	<input type="radio"/> Assistant Lecturer	<input type="radio"/> Lecturer	<input type="radio"/> Assistant Professor	<input type="radio"/> Professor
	<input type="radio"/> Master	<input type="radio"/> PhD	<input checked="" type="radio"/> diploma	
<i>Thesis Title</i>	Echocardiographic Findings in Patients with Chronic Obstructive Pulmonary Disease and Their Correlation with Disease Severity			
<i>Year</i>	2015			
<i>Abstract</i>	<p>Background : Chronic obstructive pulmonary disease (COPD) is a common disease and a leading cause of morbidity and mortality worldwide and result in an economic and social burden that is substantial and increasing. COPD has considerable effects on cardiac functions, including those of the right ventricle, left ventricle, and pulmonary blood vessels. Most of the increased mortality associated with COPD is due to cardiac involvement.</p> <p>Echocardiography(Echo) provides a rapid, noninvasive, portable, and accurate method to evaluate the cardiac changes.</p> <p>Aim of study: To assess cardiac changes secondary to COPD by echocardiography and to find if there is a correlation between echocardiographic findings and severity of COPD.</p> <p>Materials and Methods:A total 50 of patients with COPD were diagnosed and staged by pulmonary function test (PFT) according to GOLD criteria into 4 stages . For all patients,detailed history, careful clinical examination, electrocardiography(ECG), chest x ray(CXR), and routine blood tests were done. All patients evaluated by echocardiography.</p> <p>Results: On echocardiographic evaluation of COPD,40% of cases had normal echocardiographic parameters. Measurable tricuspid regurgitation</p>			

(TR) was observed in 25/50 (50.0%) of cases . Pulmonary hypertension (PHT), which is defined as systolic pulmonary arterial pressure (sPAP)> 30 mmHg was observed in 14/25 (56.0%) of patients with TR (28.0% of total patients) , in which prevalence of mild, moderate, and severe PHT were 7/14 (50.0%), 4/14 (28.6%), and 3/14 (21.4%), respectively. The frequencies of PHT in mild, moderate, severe, and very severe COPD were 7.1%, 14.3 %, 35.7%, and 42.9%, respectively. Cor pulmonale was observed in 6/14 (42.9%) of cases (12.0% of total patients) ; The frequencies of cor pulmonale in patients with mild, moderate, and sever PHT were 0 , 75.0% ,100.0 % ,respectively ; 2.0% cases had left ventricle systolic dysfunction(LVSD) and 10.0% cases had evidence of left ventricle diastolic dysfunction(LVDD). Left ventricle hypertrophy (LVH) was found in 4.0% of cases. There was a significant decrease in forced expiratory volume in one second(FEV1) means associated with Echo findings especially with PHT and cor pulmonale.

Conclusion: Prevalence of cardiovascular complications (especially PHT and cor pulmonale) is high among COPD patients and has a linear relationship with increasing severity of COPD. Echocardiography helps in early detection of cardiac complications in COPD cases giving time for early interventions.

