عنوان مقاله:

Comparison of the Factors Influencing Pulmonary Arterial Pressure in Smoker and Non-smoker COPD Patients with Pulmonary Hypertension

محل انتشار:

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خلاصه مقاله:

Background: There are several prognostic factors in patients with COPD that include FEV1, BMI, dyspnea severity, exercise capacity and pulmonary hypertension (PH). Pulmonary hypertension (PH) is one of the most important factors. PH pathogenesis in patients with COPD has not been clarified thoroughly and factors such as alveolar hypoxemia, polycythemia, acidosis and pulmonary vessels obstruction have been suggested. The authors assessed some of these contributing factors in smoker and non-smoker patients with COPD.Material and methods: This comparative-descriptive study included COPD patients suspected to have corpulmonal without exacerbation in the last four weeks. Echocardiographic evaluation of pulmonary arterial pressure (PAP) was done and pulmonary hypertension (PH) was defined as systolic pulmonary arterial pressure greater than 40 mmHg. Complete blood count (CBC) and arterial blood gas (ABG) were also studied in all patients.Results: Echocardiography was done for 142 patients who suspected to have PH and 110 patients had measurable PAP. All of the patients were in stage II - IV of COPD according to GOLD criteria. 90 patients had PH. Of which 47 were smokers and 43 were non-smokers. In smoker patients, significant correlation between PAP and PaO2 was seen (r=-0.291, p.value=0.047). But in non-smoker patients, this correlation was absent. A significant correlation between PAP and FEV1(r=-0.341, P.value=0.025) was seen in non-smoker patients. This correlation was absent in smoker patients. There was no correlation between PAP and hemoglobin, hemoglobin and FEV, and also PaO2 and FEV1 in smoker and non-smoker COPD patients.Conclusion: In non smoker patients with COPD, degree of pulmonary parenchyma lesions and bronchial obliteration plays a more important role than hypoxia in the pathogenesis of pulmonary hypertension.

کلمات کلیدی:

Pulmonary hypertension, smoker, COPD, nonsmoker