عنوان مقاله:

Evaluation of Prognostic Factors of Mortality in Patients with Chronic Obstructive Pulmonary Disease

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 26, شماره 118 (سال: 1397)

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خلاصه مقاله:

Background and Objective: Chronic Obstructive Pulmonary Disease (COPD) is a chronic obstructive and irreversible disease which has a high mortality and morbidity rate. Systemic inflammation and the thrombotic process can influence the prognosis of these patients. The objectives of this study were to evaluate prognostic effects of CBC indices (WBC, PMN, MPV, RDW), forced expiratory volume-one second (FEV۱) and mean Pulmonary Artery Pressure (mPAP) in the prognosis of COPD patients with acute exacerbation of the disease. Material and Methods: This cross-sectional study was performed on exacerbated COPD patients who were admitted to the emergency department, Afzalipour Hospital, Kerman, Iran during ۲۰۱۶-۲۰۱۷. For all the patients, CBC was assessed as they arrived then Pulmonary Function Test and echocardiography were conducted. In order to create the final model, we employed multivariate regression analysis. Results: A total of ۱۰۷۸ patients were enrolled during one year, of which ۵۸.۳% were male. In multivariate analysis, White blood cells (WBC), Polymorphonuclear leukocytes (PMN), Mean platelet volume (MPV), Red Cell Distribution Width (RDW), FEV۱ and mPAP were the six variables which are independently associated with hospital mortality and ICU admission. Sensitivity, specificity and area under the curve for these six variables model were ۷۸.۵, ۹۲ and ۸۶% respectively. Conclusion: Since the inflammatory and thrombotic events are influential in the prognosis of COPD patients, it may be possible to predict patients outcome with CBC related indices (WBC, PMN, MPV and RDW), although other important risk factors such as pulmonary hypertension and FEV۱ decrease should be considered as well.

کلمات کلیدی:

COPD, Mean platelet volume, Red Cell Distribution Width, Hospital mortality