The pulmonary artery obstruction index (PAOI) score is correlated with right ventricular systolic pressure, tricuspid regurgitation and D-dimer values in patients with pulmonary embolism

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Introduction: Obstruction of the pulmonary artery and its branches increases the pulmonary vascular resistance, resulting in pulmonary hypertension and right ventricular (RV) dysfunction.[1,2] *Aim:* To analyze the correlation between the pulmonary artery obstruction index (PAOI) score obtained from quantifying obstruction in pulmonary embolism (PE), inflammatory markers, coagulation parameters, and echocardiographic findings.

Patients and Methods: This retrospective study included 59 patients hospitalized with PE at the Department of Internal Medicine, General Hospital "Prim.dr. Abdulah Nakaš" in the period from 2022 until 2024. PE was confirmed on CT angiography and the PAOI score was calculated using the Qanadli index. Echocardiography was performed during hospitalization. Inflammatory and coagulation parameters were obtained.

Results: The PAOI score significantly correlated with the right ventricular systolic pressure (RVSP) (p=0.03) and with the presence and degree of the tricuspid regurgitation (p=0.03). No correlation was found between the PAOI score and other echocardiographic parameters. Strong correlation was found between the PAOI score and D-dimer values (p<0.001). No significant correlation was found between the PAOI score and C-reactive protein, hemogram and hemogram-derived ratios.

Conclusion: The PAOI score on admission in patients with PE is in correlation with RV function and coagulation parameters.

LITERATURE

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