Evaluation of the Predictive Role of Standard Laboratory Tests for Disease Severity in Patients with Deep Venous Thrombosis

MUSTAFA ETLİ¹, Oguz KARAHAN¹, Faruk SERHATLIOGLU², and Hakan ONTAS³

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Abstract

Introduction: Deep venous thrombosis (DVT) can result in fatal outcomes if it is not timely diagnosed and sufficiently treated. Some laboratory markers were identified in previous reports for predicting the disease with low sensitivity or specificity. We aimed to evaluate the predictive value of serum albumin levels and compare them with conventional laboratory parameters. Method: Fifty patients with acute lower-extremity DVT who has no previous history of malignancy or hematologic disorder were included to the study. The demographical variables and standard biomarkers of the DVT group were compared with the normal population (n:50). Thereafter patients were divided into two groups as extensive DVT (thrombosis involves popliteal, femoral, and iliac veins together) and localized DVT (thrombosis involves popliteal vein and below) and biomarkers were compared in patient groups. Results: The demographical variables and white blood cell count (WBC) found as similar between healthy groups and DVT groups. However, mean platelet volume (MPV), D-Dimer, neutrophil to lymphocyte ratio (NLR), and fibrinogen to albumin ratio (FAR) were found markedly higher in DVT patients. Moreover, statistically incremental FAR and NLR levels were detected (p<0.05) in patients with extensive DVT (involved iliac and femoral veins). Conclusion: Serum NLR and FAR levels seem to be significant predictors for the extensive thrombotic event in patients with DVT.

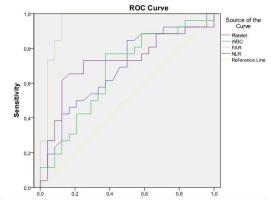
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¹Alanya Alaaddin Kevkubat University

²Nigde Omer Halisdemir Universitesi

³Balıkesir Ataturk City Hospital



			Area Under	the Curve		
Test Result Variable(s)			Std. Error ^a	Asymptotic Sig. ^b	Asymptotic 95% Confidence Interval	
					Lower Bound	Upper Bound
	Platelet	,685	,076	,025	,536	,834
	WBC	,665	,078	,045	,512	,818
	FAR	,952	,033	,000	,000	1,000
	NLR	,720	,076	,008	,572	,869

The test result variables(s), Fridates, Nutr. has at reast one lie between the positive actual state group and the negative actual state group. Statistics may be biased.

a. Under the nonparametric assumption

b. Null hypothesis: true area = 0.5

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 $Table 1. doc\ available\ at\ https://authorea.com/users/727404/articles/709244-evaluation-of-the-predictive-role-of-standard-laboratory-tests-for-disease-severity-in-patients-with-deep-venous-thrombosis$

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