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VASCULAR DISEASE

CT ANGIOGRAPHIC FINDING IS A SIGNIFICANT PREDICTOR OF 30 DAY MORTALITY IN PROVOKED AND UNPROVOKED ACUTE PULMONARY THROMBOEMBOLISM

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Monday, April 04, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension

Abstract Category: 12. Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension

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Background: Several risk factors have been suggested regarding prognosis of pulmonary thromboembolism (PTE). The aim of the present study is to evaluate CT and echocardiographic parameters in predicting clinical outcome of PTE and assess the differences of these parameters in between provoked and unprovoked PTE.

Methods: We analyzed consecutive cohort of 256 patients according to 30 day mortality and whether they are provoked or unprovoked PTE in terms of baseline characteristics, CT angiographic and echocardiographic findings.

Results: History of congestive heart failure, cardiogenic shock, provoked PTE, CT right ventricle/left ventricle ratio (CT RVD/LVD) and CT obstruction index were significantly larger among the group with 30 day mortality. After multivariate Cox regression analysis, provoked PTE, cancer, CT RVD/LVD ratio, CT obstruction index was significantly larger in 30 day mortality group. When provoked and unprovoked PTE were compared, history of smoking, elevated creatinine, CT RVD/LVD were significantly larger in 30 day mortality group

Conclusions: CT obstruction index and CT RVD/LVD ratio, provoked PTE is independent predictor of 30 day mortality. The patients with provoked PTE have worse prognosis and CT RVD/LVD ratio is significantly larger than in unprovoked PTE.

	Univariate Cox regression	Multivariate Cox regression	Hazard Ratio
	p value	p value	
Provoked	<0.001	0.036	0.611
LDL	0.014	0.224	1.010
CHF history	0.087	0.738	0.523
Shock	0.005	0.060	1.02
Cancer	<0.001	0.023	1.814
CT RVD/LVD	<0.001	0.048	1.914
CT obstruction index	0.037	<0.001	0.973