Abstract: The significance of syncope as a presenting symptom in patients with intermediate risk pulmonary embolism

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Topic(s): Pulmonary Embolism

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Background: Intermediate risk pulmonary emboli patients are a challenging group with high risk of recurrent VTE, hemodynamic instability and mortality. A gap of knowledge has emerged regarding predictors of clinical deterioration. The prognostic role of syncope presentation is debatable. We thought to investigate the ability of syncope to predict in-hospital complications and the need of escalation therapy among intermediate risk PE patients admitted to the ICCU.

Methods: Consecutive cohort of all patients hospitalized with a diagnosis of PE, classified as intermediate risk and admitted to the intensive cardiac care unit at the Sheba medical center between the years 2008–2016. Primary outcome: MACE consisting of either one of or a combination of: mechanical ventilation, hemodynamic instability and need for inotropic support, Secondary reperfusion and in-hospital mortality. Secondary outcomes: Each of the individual components including major bleeding and renal failure

Results: 213 intermediate risk PE patients were analyzed. 40 patients (19%) presented with syncope. Syncope patients had significant higher RV/LV ratio upon computed tomography (1.7±0.6 vs. 1.4±0.4, p=0.011). The presence of either moderate or severe RV dysfunction was more prevalent, without statistical significance (57.5% vs. 41%, p=0.076).

Syncope patients had higher prevalence of escalation therapy (28.9% vs 9.4%, p=0.003), as well as in the following individual secondary endpoints: mechanical ventilation (10% vs 1.8%, p=0.026), hemodynamic instability (17.9% vs 2.9%, p=0.02), bleeding rates (15% vs 2.4%, p=0.004), and increased need of inotropic support (10% vs 0.6%, p=0.005). There was no significant difference in the need for reperfusion therapy, both surgical (5% vs. 0.6%, p=0.093) and non- surgical (7.5% vs 6.4%, p=0.732), and in-hospital mortality (2.5% vs 0%, p=0.190).

Conclusion: The presence of syncope as a presenting symptom is associated with more complicated in-hospital clinical course. These patients warrant more aggressive monitoring and assessment for the need of escalation therapy.
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Secondary Outcomes

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Reperfusion
Inotropic Support
Mech Vent
Hemodynamic...
Ac renal failure
Maj Bleed
Mortality