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## MYOCARDIAL ISCHEMIA AND INFARCTION

### WAIT AND WATCH APPROACH IN SUB-MASSIVE PULMONARY EMBOLISM

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Tuesday, April 05, 2011, 9:30 a.m.-10:45 a.m.

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Session Title: Cardiopulmonary Resuscitation/Emergency Cardiac

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**Background:** Sub-massive PE (SM-PE), defined as PE in a hemodynamically stable patient with evidence of right ventricle dysfunction (RVD), is observed in up to 40% of patients with PE with mortality risk of up to 15%. Whether immediate thrombolysis or embolectomy should be performed in all of the patients presenting with SM-PE is an area of controversy.

**Methods:** We examined a cohort of 41 consecutive patients admitted to our ICU with a diagnosis of SM-PE.

PE was diagnosed based on pulmonary CT angiography and RVD was determined based on echocardiography exam done upon admission.

Initial treatment consisted of close respiratory and hemodynamic monitoring and unfractionated heparin. Repeated echocardiographic evaluation of RVD and PA pressure were also done.

Patients who did not improve or deteriorated clinically (i.e. remained severely hypoxemic, tachycardic and with continued signs of RVD both clinically and on echocardiography) within the first 24-48 hours were treated with escalation therapy, (thrombolysis or surgical embolectomy).

**Results:** The average age of patients was 61±14 years with 66% women.

On admissions all of the patients were hemodynamically stable (systolic pressure>90mmHG) and hypoxemic (average O2 saturation of 88%).

RVD was present in all of the patients. The systolic pulmonary artery pressure (SPAP) on admission was 54±16 mmHg

A total of 8 patients received escalation therapy, with 7 receiving thrombolysis and one underwent surgical embolectomy. All of the patients receiving escalation therapy showed failure to improve or clinical deterioration within the first 24-48 hours. A total of 3 patients died (2 receiving thrombolysis and one undergoing surgical embolectomy)

The remaining 33 patients improved clinically on heparin treatment alone, with resolution of hypoxemia and continued hemodynamic stability. Echocardiographic evaluation post treatment showed improved RV function and a statistically significant decrease in SPAP from of 52±15 mmHg at admission to 37±12 mmHg.

**Conclusions:** In Our experience most of the patients with sub-massive PE improve with anticoagulation therapy alone.

Close wait and watch approach may identify those who will need further escalation therapy.