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Thrombolytic therapy in submassive pulmonary embolism

To the Editor

We have greatly enjoyed reading the recently published article by Nagamalesh et al.[1]. The authors examined the data of 31 consecutive patients with pulmonary embolism (PE) in a single center observational study and concluded that thrombolytic therapy can be considered for patients with both massive and submassive pulmonary thromboembolism. However, we have some concerns;

- The authors defined massive PE as sustained hypotension with SBP <90 mmHg for at least 15 min or requiring inotropic support were considered as massive PE, which consists of 26% (n = 8) of patients. However, in the results section they have written that 52% (n = 16) of the subjects presented with shock at admission or within 48 h following admission. It is not clear how many patients presented with massive PE; 8 or 16?
- The authors concluded that thrombolytic therapy can be considered for patients with both massive and submassive PE, However, the value of thrombolysis in acute submassive PE remains controversial in the current studies.[2–3] In a recent article, Desai and colleagues evaluated 3253 PE patients with hemodynamically stable right-sided heart failure.[2] There was no significant difference in mortality between hemodynamically stable PE patients with right ventricular dysfunction who received thrombolytic agents compared with those who did not.[2] In another single-center, prospective, randomized study of 86 patients with submassive PE, patients were divided into two groups: group I patients received thrombolysis (single bolus of tenecteplase) with unfractionated heparin and group II patients received placebo with unfractionated heparin.[3] In this study, Sinha et al. found that patients with acute submassive PE do not derive overall mortality benefit, recurrent PE and rehospitalization with thrombolytic therapy.[3] Therefore, we think that observational studies cannot be used as reliable sources to make statements of fact about the safety, efficacy, or effectiveness of a practice.

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