

Clinical trials of fibrinolysis for pulmonary embolism in all type of patients

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1 fibrinolytic

Trial	Treatments	Patients	Trials design and methods
half-dose t-PA vs no fibrinolysis			
MOPETT , 2012 n=NA follow-up: 28 months	half-dose thrombolysis versus standard regimen of anticoagulants alone	patients presenting with moderate PE	Parallel groups open
rt-PA vs no fibrinolysis			
PAIMS 2 , 1992 n=NA follow-up: 7 days	rt-PA 100 mg IV over 2 h and heparin versus Heparin 1750 IU/hr i.v. for 7 to 10 days	patients with angiographically documented pulmonary embolism	Parallel groups open Italy
Goldhaber , 1993 n=46/55 follow-up: 14 days	rt-PA 100 mg IV over 2 h then 1000 U/hr heparin,when PTT or TT was <2 times control. Subsequent heparin dose achieved PTT = 1.5 to 2.5 times the upperlimit of normal. versus heparin, initial dose 5000 U bolus followed by 1000 U/hr continuous i.v., 4 hr after the dose of heparin according to PTT. Target PTT = 1.5 to 2.5 times of normal	haemodynamically stable patients with acute pulmonary embolism	Parallel groups open US
streptokinase vs no fibrinolysis			
Tibbitt , 1974 n=17/13 follow-up: 3 days	intrapulmonary SK 600,000-U bolus, then 100,000 U/h for 72 h and intrapulmonary heparin versus 5000U heparin plus 100mg hydrocortisone infused over 30 mins through pulmonary artery catheter. Followed by 2500 U for 72 hr	life-threatening pulmonary embolism	Parallel groups open UK
Ly , 1978 n=14/11 follow-up: 10 days	streptokinase 250,000-U bolus, then 100,000 U/h for 72 h and heparin versus Heparin 15,000 IU initial dose i.v. followed by 30,000 IU/day continuous i.v., adjusted by TT	patients with major pulmonary embolism verified by angiography	Parallel groups open Norway
Jerjes-Sanchez , 1995 n=43/5 follow-up: 3 days	streptokinase 1,500,000 U IV over 1 h and heparin versus heparin alone	high clinical suspicion for massive pulmonary embolism	Parallel groups open
urokinase vs no fibrinolysis			

continued...

Trial	Treatments	Patients	Trials design and methods
Marini , 1988 n=20/10 follow-up: 7 days	urokinase 800,000 U/d IV for 72 h, UK 3,300,000 U IV for 12 h and heparin versus heparin	patients with pulmonary embolism	open
rt-PA vs placebo			
Konstantinides , 2002 n=118/138 follow-up: <30 days	100 mg alteplase given as 10 mg bolus followed by 90 mg i.v. infusion over 2 hours then i.v. heparin 1000 U/hr adjusted to maintain APTT of 2.0 to 2.5times the upper normal limit. Oral anticoagulation was started on day 3 versus placebo + i.v. heparin 1000 U/hr adjusted to maintain APTT of 2.0 to 2.5times the upper normal limit. Oral anticoagulation was started on day 3	patients with acute pulmonary embolism and pulmonary hypertension or right ventricular dysfunction but without arterial hypotension or shock	Parallel groups double blind Germany
PIOPED , 1990 n=9/4 follow-up: 7 days	rt-PA 4080 mg IV over 90 min plus heparin versus placebo+heparin	patients with acute pulmonary embolism	Parallel groups double blind US
Levine , 1990 n=33/25 follow-up: 10 days	rt-PA 0.6 mg/kg IV over 2 min and heparin, initial bolus of 5000 U, then 30,000 U for first 24 hr continuous infusion, only interrupted for the duration of the study drug infusion versus placebo + heparin bolus of 5000 U, then 30,000 U for first 24 hr continuous infusion	patients with objectively established acute symptomatic pulmonary embolism	Parallel groups double blind Canada
tenecteplase vs placebo			
PEITHO ongoing [NCT00639743] n=NA follow-up: 7 days	tenecteplase (single i.v. bolus) versus placebo	patients with sub-massive pulmonary embolism	Parallel groups double-blind
urokinase vs placebo			
UPET , 1973 n=82/78 follow-up: <14 days	urokinase 2,000-U/lb bolus, then 2,000 U/lb per h IV for 12 h and heparin versus placebo + Heparin (a loading dose of 75 U/pound, then 10 U/pound/hr for 12 hr infusion, then heparin for a minimum of 5 days, followed by heparin or warfarin therapy for a total of 14 days)	patients with pulmonary embolism	Parallel groups double blind US
desmoteplase vs alteplase			
Tebbe , 2009 n=34 follow-up:	125, 180, and 250 microg/kg bodyweight desmoteplase versus 100 mg alteplase	acute massive pulmonary thromboembolism	Parallel groups NA

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