HEPARIN VERSUS ASPIRIN AFTER RECOMBINANT TISSUE PLASMINOGEN ACTIVATOR THERAPY IN MYOCARDIAL INFARCTION:A RANDOMIZED TRIAL.

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After lytic therapy with tissue plasminogen activator (TPA) adjunctive heparin and/or aspirin are used to maximize patency and prevent reocclusion, but no randomized trial has evaluated their comparative efficacy for those purposes nor assessed their relative impact on hemorrhagic complications. Accordingly a multicenter trial (George Washington, St. Louis and Baylor) has randomized 190 pts of a projected 200 pt sample size. Acute MI pts with 1/2 - 6h of pain and ≥ 1mm ST elevation in 2 contiguous leads received TPA, 100 mg, over 6h and either heparin (begun after the start of TPA infusion as 5000U bolus, then 1000U/hr ultimately titrated to PTT 1 1/2 - 2 X control for 7 days) or aspirin (80 mg po at start of TPA, then daily for 7 days).

Initial patency is established by angiogram 7-24h after TPA start; reocclusion identified by repeat angiography at 7-10 days. No angioplasty is done except for recurrent ischemia. Hemorrhagic events and transfusion needs are recorded at clinical sites; angiographic endpoints are established in a core lab blinded to film sequence and drug assignment. Endpoint data analysis will be completed for presentation by March 1990.

IS PRE-DISCHARGE CORONARY ARTERIOGRAPHY BENEFICIAL IN PATIENTS WITH MYOCARDIAL INFARCTION TREATED WITH THROMBOLYTIC THERAPY?

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To ascertain whether pre-discharge coronary arteriography (cath) is beneficial in pts with acute myocardial infarction treated with rt-PA, heparin and ASA, we compared the outcome of 197 pts in TIMI II-A assigned to conservative management (no routine PTCA) and routine pre-discharge cath with 1461 pts from TIMI II-B assigned to conservative management without routine cath unless ischemia recurred spontaneously or on pre-discharge exercise testing. The 2 groups were similar with respect to important baseline variables.

	Routine Cath (N = 197)	Cath If Ischemia (N = 1461)	P
Initial Hospitalization:			
Recurrent Ischemia	43%	38%	.18
Cath done	94%	34%	.001
PTCA or CABG done	24%	21%	.26
Death	8.1%	4.2%	.013
Death or reinfarction	10.7%	8.2%	.25
Discharge through 1 yr follow-up:			
Rehospitalization	28%	37%	.02
Cath done	12%	22%	.001
PTCA or CABG done	13%	13%	.99
Death	2.2%	2.9%	.58
Death or reinfarction	6.1%	6.9%	.69

These data support a policy of "watchful waiting" with coronary arteriography (and revascularization) reserved for pts with recurrent ischemia. This policy is associated with (1) a lower initial hospital mortality; (2) a slightly higher re-admission and coronary arteriography frequency over the initial year of follow-up; but (3) a similar frequency of late revascularization, mortality and reinfarction.

PARTIAL RESISTANCE TO ANTICOAGULATION AFTER STREPTOKINASE TREATMENT FOR ACUTE MYOCARDIAL INFARCTION.

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Reocclusion following thrombolysis is possibly caused by a prothrombotic state. We compared the response to anticoagulation of fifty patients (pts) who had been given streptokinase (SK) and subsequent anticoagulation for acute myocardial infarction (A.M.I.) (group 1) with that of 35 pts treated with anticoagulants without prior thrombolysis, either for A.M.I. or for other indications (group 2). Pts who had received SK required 37,755±1516 (mean±SEM) units of heparin per day to achieve the desired APTT, compared with 30,294±1089 units per day in pts without antecedent thrombolysis (P<0.001), and were treated 4.7±0.4 days with heparin until achievement of adequate anticoagulation, as compared with 3.3±0.2 days in the control group (P=0.01). Despite their higher heparin requirement, group 1 pts attained a lower APTT value than the control subjects (87.2±5.0 Vs. 100.7±5.9 seconds, (P=0.08). Group 1 pts required 5.0±0.3 days to reach anticoagulation with warfarin, as contrasted with 4.1±0.2 days in group 2 (P=0.05). We suggest that following thrombolytic treatment in A.M.I. there is partial resistance to anticoagulation: anticoagulant therapy should be adjusted accordingly, since inadequate anticoagulation may be responsible for the process of reocclusion and recurrent ischemia.

Tuesday, March 20, 1990
8:30AM–10:00AM, Room 43
Thrombosis and Thrombolysis

RESULTS OF A RANDOMIZED TRIAL COMPARING APSAC AND rTPA FOR THE PRESERVATION OF LEFT VENTRICULAR FONCTION AFTER ACUTE MYOCARDIAL INFARCTION.

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180 patients with a first acute MI were randomly included in a double blind double dummy multicenter study comparing APSAC (30 mg IV over 5 minutes) and rTPA (10 mg in bolus, and 90 mg over 180 min). Only pts aged 70 years or less, with clinical and ECG evidences of MI and admitted 4 hours or less after the onset of chest pain, were included. Global and regional LV fonction were assessed from a LV angiography (angio) performed between day 5 and day 7, plus a radionuclide angiography (RN) performed 3 weeks later. Each parameter was blindly analyzed by two independant observers.

Results :

- there was no difference for baseline data (age 54 ± 11 yrs, onset of treatment 170 ± 50 min after T0), and clinical data (in hospital mortality rTPA 7 pts vs APSAC 5 pts, bleeding rTPA 9 pts, vs APSAC 11 pts).
- L.V. fonction and angio results : m (+ 95 % confidence limits)

	rTPA	APSAC	P
Patency Rate	63/84 (66 % - 84 %)	61/84 (64 % - 82 %)	NS
Angio E.F.	.52 (.49 - .55)	.50 (.48 - .53)	NS
Asynergic score	10.9 (9 - 12.7)	11.7 (10 - 13.4)	NS
RN EF	.48 (.46 - .50)	.48 (.46 - .50)	NS

- Subgroup analysis for anterior MI (n = 76) and posterior MI (n = 99) showed no statistical difference.

Conclusion : there is no, or only minimal differences in term of preservation of LV fonction, between APSAC and rTPA administrated at the early stage of a MI.