

FRIDAY, SEPTEMBER 12, 2008

7:30 A.M. – 8:00 A.M.

CONTINENTAL BREAKFAST WITH EXHIBITORS

8:00 A.M. – 9:45 A.M.

SESSION II

PRESIDING: Thomas C. Bower

Amy B. Reed, MD

9. Thrombolytic Therapy Using Low-to-intermediate rt-PA Dose Regimen: Safety Profile and Predictors of Procedural Success and Delayed Patency

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OBJECTIVES: Evaluate for possible predictors of success and sustained patency following transcatheter thrombolytic therapy using rt-PA in patients with acute lower extremity ischemia.

METHODS: Retrospective evaluation of 78 patients (mean age 57±15 years, 51 males) who underwent thrombolytic therapy at our institution for acute lower extremity ischemia from 9/2002 to 5/2007/ There were 93 lysis procedures in 86 conduits (native vessels 28, stent/stent-grafts 5, PTFE grafts 24, veins 36). Intermediate dosing regimen of rt-PA was used (mean 0.58±0.16 mg/hr, range 0.3-1.0). Mean infusion duration was 45±20 hrs (15-124). We compared various patient-dependent, clinical, and procedural variables in their effect of procedural success as well as patency following lysis.

RESULTS: Technical success achieved in 66 procedures by thrombolysis with or without endovascular adjunctive procedures. In another 14, lytic therapy allowed a lesser surgical procedure, while in the remaining 14 it was unsuccessful. Complications occurred in 17 procedures (bleeding 6, embolization 3, perforation 2, MI 1, pneumonia 1, renal failure 2, colitis 1, HIT 1). Two periprocedural deaths were due to a massive MI and an extensive systemic hemorrhage. Compartmental hypertension occurred following 4 procedures and led to limb loss in 2. Below-knee amputations were needed in 10 patients. Two Hemorrhagic complications were not significantly related to dose-rate or cumulative dose or duration of rt-PA infusion, anticoagulation level or platelets count. There was a nonsignificant trend in fibrinogen < 50% baseline. Significant predictors of technical failure were low outflow score, prior ipsilateral endovascular intervention, and symptoms >1 week. Assisted patency was maintained in 68% of conduits (mean followup 10.6±11.6 months, range: 0.1-40). Significant predictors of worse delayed patency were hypercoagulable state, symptoms > 1 week, and poor runoff.

CONCLUSIONS: rt-PA achieved reasonable recanalization and patency rates. Despite the use of a low to intermediate dose regimen, we found a higher than expected rate of complications. The clinical and financial impacts of these findings will need to be further evaluated in comparison with other means of revascularization.

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