Routine versus Selective Angiography after Embolectomy in Acute Lower Limb Ischemia: A Prospective Randomized Clinical Trial

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Introduction

Many authors recommend the routine use of completion angiogram after open surgical treatment of acute limb ischemia; however, none of the published studies were based on randomized controlled trials.

Patients & Methods

126 patients, 134 limbs acute limb ischemia

34 patients 34 limb were excluded: 12 elevated serum creatinine 7 grade III rutherford ischemia 11 traumatic acute ischemia 2 iatrogenic acute ischemia 2 thrombosed arterial graft

92 patients 100 limbs

Group A
50 limbs Routine completion angiogram

13 patients died 13 lost in follow up 24 completed

Follow-up 12 months

Analysis

50 limbs

Group B
50 limbs Completion angiogram on selective basis failure to advance embolectomy catheter/weak backflow/intima

6 patients died 19 lost in follow up 25 completed

Results

Technical success rate was 84% in group A and 88% in group B (p=0.564). Using Kaplan Meier curves, primary patency rate in 12 months was 73% in group A and 85% in group B (p=0.295). Limb salvage rates in 12 months was 85% in group A and 92% in group B (p=0.685).

Conclusion

Completion angiography after open revascularization of acute limb ischemia is a useful modality and improves the outcomes of acute limb ischemia management; however, it can be done on selective criteria and not routinely without affecting the long term patency.

This trial was registered on Clinicaltrials.gov (NCT03388021)