

**#17 ACUTE LIMB- THREATENING ISCHEMIA - DETERMINANTS OF LONG-TERM OUTCOME.**

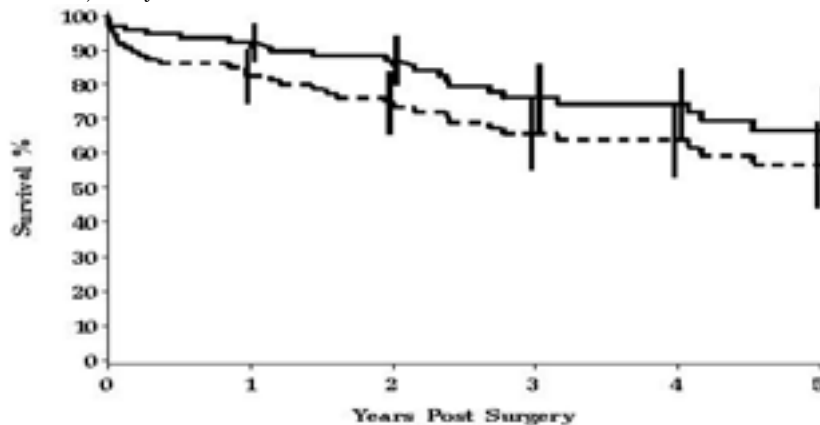
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**Objective:** To evaluate the risk factors associated with the long-term amputation-free survival in patients undergoing open surgery for acute limb-threatening ischemia.

**Methods:** Data was culled from a retrospective chart review. Association between baseline factors and time-to-event outcomes were assessed with Kaplan-Meier analysis and Cox proportional hazards regression.

**Results:** Over a 12-year period, 103 patients (age  $62 \pm 14$ -years) were operated on for acute limb-threatening ischemia at an academic medical center. Mean duration of ischemia was 45-hours (median 6; quartiles 3,48), and pre-procedural ABI was .17 (quartiles .0, .30). Risk factors evaluated include age, gender, ischemia duration and severity, site of occlusion, hypertension, diabetes mellitus (DM), renal failure, smoking, cardiac disease, cerebrovascular accident (CVA), anticoagulation, thrombosis *vs.* embolism, graft *vs.* native vessel, anesthesia type, recurrent ischemia (RI), and requirement for additional surgery (RAS). Risk factors predictive of amputation include duration of ischemia ( $P < .0001$ ), DM ( $P = .01$ ), prior bypass graft ( $P = .02$ ), RI ( $P = .003$ ), and RAS ( $P = .0002$ ). Risk factors for mortality include atrial fibrillation ( $P = .004$ ), CVA ( $P = .02$ ), embolism ( $P = .02$ ), and RI ( $P = 0.004$ ). Predictors of amputation-free survival include the duration of ischemia ( $P = .0004$ ), DM ( $P = .02$ ), RI ( $P < .0001$ ), and RAS ( $P = .02$ ). Survival was 92% (95% confidence interval [CI], 86.8%-97.8%) at 1-year, and 66.5% (95% CI, 54%-79%) at 5-years. Amputation-free-survival was 82.5% (95% CI, 74.6%-90%) at 1-year, and 56.5% (95% CI, 44%-69%) at 5-years.



*Survival (solid line) and Amputation-Free Survival (dotted line) Kaplan-Meier estimates and 95% confidence intervals.*

**Conclusion:** A better understanding of the local and systemic factors that have a negative correlation to the amputation-free survival may help improve the long-term outcome.