Disparity in Outcomes of Surgical Revascularization for Limb Salvage: Race and Gender are Synergistic Determinants of Vein Graft Failure and Limb Loss


Conclusion: Female gender and black race are risk factors for adverse events after vein bypass surgery for limb salvage.

Summary: This article represents another of the many interesting post hoc analyses derived from the PREVENT III, a multicenter clinical trial of patients undergoing vein bypass for critical limb ischemia (J Vasc Surg 2006;43:742-51). The PREVENT III database represents the largest prospective cohort of patients who underwent surgical treatment for critical limb ischemia. The database includes 1404 lower extremity vein graft operations. This particular analysis was designed to examine the interactions of race and gender as they affect graft patency, limb salvage, and mortality. Proportional hazards and propensity scoring was used to examine relationships of patient demographics to relevant clinical end points. These included peri-operative events and 1-year outcomes of graft patency, limb salvage, and patient survival. Propensity score models adjusting for covariants that included institution, comorbidities, technical factors, and adjunctive medications were used to examine associations between race, gender, and outcomes.

The PREVENT III trial had 249 black patients (131 men and 118 women). Black men were at increased risk for early (30-day) graft failure (hazard ratio [HR], 2.832; 95% confidence interval [CI], 1.393-5.759; P = .0004). This held true even when analysis was restricted to high-risk venous conduits. Black patients also had reduced secondary patency (HR, 1.49; 95% CI, 1.08-2.06; P = .016) and reduced limb salvage (HR, 2.02; 95% CI, 1.27-3.20; P = .003) at 1 year. Black women were the most disadvantaged, with an increased risk of graft thrombosis (HR, 2.02 for secondary patency; 95% CI, 1.27-3.20; P = .003) and an increased risk for major amputation (HR, 2.88; 95% CI, 1.16-6.83; P = .016) at 1 year. Perioperative mortality and 1-year mortality, however, were similar across race and gender groups.

Comment: It has been previously suggested that African Americans and women have poorer results with vascular surgery. The findings in this study are therefore not all that surprising. The authors suggest the data raise the possibility of an altered response to vein bypass surgery in these subgroups. It is certainly not obvious what this biologic response would be. Nevertheless, the clinical implication is that African American women undergoing vein graft bypass surgery are a particularly high-risk group that may benefit from very aggressive postoperative surveillance and medical management.

General Anesthesia Versus Local Anesthesia for Carotid Surgery (GALA): A Multicentre, Randomised Controlled Trial


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Disability and Mortality in Chronic Obstructive Pulmonary Disease


Conclusion: Endothelium-dependent and endothelium-independent vasodilation is impaired in patients with chronic obstructive pulmonary disease (COPD).

Summary: COPD is an inflammatory lung disease; however, increasing data suggest the inflammatory reaction associated with COPD is not restricted to the lung. Patients with stable COPD had increased levels of systemic inflammatory markers, such as C-reactive protein, compared with controls. In addition, inflammation associated with COPD appears to increase over time, and systemic inflammation associated with COPD increases during acute exacerbations. Systemic inflammation also contributes to the development of cardiovascular diseases. It has been observed that there is an increased risk of cardiovascular morbidity and mortality in...