

Objectives: To identify the impact of lower extremity revascularization or amputation on 30-day mortality in patients with preoperative do not resuscitate orders documented.

Methods: Patients were identified from the 2005-2008 ACS NSQIP datafile using CPT codes. Group-wise comparisons based on DNR status were performed using t-tests and X². Associations between preoperative DNR status, operative management (categorically evaluated as revascularization versus amputation), and mortality were evaluated using logistic regression.

Results: 15,541 operations were identified, of which 9417 were revascularizations and 6,124 were major amputations. 526 patients were DNR (1.1% of revascularizations; 6.8% of amputations). DNR patients were older and had a greater prevalence of preoperative comorbid conditions and abnormal laboratory data. Perioperative mortality was 22.2% for DNR versus 5% for non-DNR patients [univariate OR (95% CI) for DNR status: 5.4 (4.4-6.6); P<0.0001]. Multivariable modeling adjusting for preoperative differences in demographic, comorbidity, and laboratory data revealed an interaction between DNR status and procedural management (P=0.0013). DNR status was associated with increased mortality risk following both revascularization [Estimated(OR)(95% CI):4.9 (2.9-8.3)] and amputation [Estimated (OR)(95% CI):1.9 (1.4-2.5)].

Conclusions: DNR patients are at increased risk for perioperative mortality following both lower extremity amputation and revascularization, and this association between DNR status and mortality persists after adjusting for differences in other risk factors. The differential effect on mortality risk based on procedural management implies greater risk for DNR patients undergoing revascularization, but may reflect the influence of DNR status on procedure selection given greater prevalence of DNR status among these patients. DNR status should be considered during preoperative risk assessment and may inform preoperative counseling and decision making.

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PS106.

Transplantation of Purified CD34+ Cells from Peripheral Blood in Treatment of No-option Critical Limb Ischemia: A Pilot Study

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Objectives: To evaluate the safety and efficacy of transplantation of purified peripheral blood CD34+ cells in treatment of no-option critical limb ischemia (NOCLI).

Methods: From May 2009 to Nov. 2010, 15 NOCLI cases were included, 11 with thromboangitis, 2 atherosclerosis obliterans, and 2 vasculitis, mean age 44±15years. G-CSF was subcutaneously injected for 5 days before apheresis. CD34+ cells were isolated with CliniMACS system, and then intramuscularly injected into calf and foot.

Results: Technical success was achieved in all cases. Major amputation was performed in 2 cases postoperatively, and the salvage rate was 87%. The mean number of transplanted cells was (7.84±4.17) ×10⁵/kg. The follow-up was accomplished in all cases, ranging from 1-19 months (mean 8±5months). One month after transplantation, the rest pain was obviously relieved in 11 cases, and the Wong-Baker FACES pain rating scale score significantly decreased from 7±2 to 1±1, P=0.0000. At 6 months, the pain-free walking distance on treadmill measured in 8 eligible cases was significantly improved from 3.0±3.0 min to 17.9±10.6 min (P=0.001); the ankle-brachial index increased from 0.45±0.22 to 0.69±0.13 (P=0.007); transcutaneous partial oxygen pressure rose from 29±12mmHg to 57±9mmHg (P=0.0002). Of 9 cases with the foot ulcer, it was healed in 6 patients at 4±3months and apparently shrank in 3. No serious complications were observed either perioperatively or during the follow-up.

Conclusions: Transplantation of purified peripheral blood CD34+ cells appeared to be safe and effective in treatment of NOCLI, and mid-to-long-term results is pending further investigation.

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PS108.

A Meta-Analysis of the Outcomes of 8,550 Patients Comparing Open surgical and Endovascular Treatment for Aorto-Iliac Occlusive Disease

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Objectives: Treatment options for aorto-ilac occlusive disease (AIOD) include open and endovascular treatment. We performed a meta-analysis of studies reporting the treatment outcomes for AIOD.