

Enhanced Cell Therapy Strategy to Treat Chronic Limb-Threatening Ischemia

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Intermittent programmed compression of the chronically ischemic limb is associated with arteriogenesis. However, progenitor cell elements contributing to this neovascularization are typically diminished in number and function in the elderly dysvascular patient, particularly in the presence of diabetes, renal insufficiency, and cardiac disease. Granulocyte colony stimulation factor (G-CSF) dramatically boosts the circulating progenitor cell count. G-CSF was administered in 2 patients being treated for ischemic wounds with an intermittent programmed pneumatic compression device (PPCD). Both had comorbidities associated with diminished circulating progenitor cell counts. Remarkable clinical, hemodynamic, and angiographic improvement was observed. Further study of this synergistic strategy is warranted.