

CLINICAL APPLICATION OF AUTOLOGOUS WHOLE BONE MARROW STEM CELL TRANSPLANTATION FOR CRITICAL LIMB ISCHEMIA WITH BUERGER'S DISEASE**Dong-ik Kim**

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Korea Our goal was to evaluate early results of the clinical application of autologous whole bone marrow stem cell transplantation (AWBMSCT) for critical limb ischemia (CLI) in patients with Buerger's disease. We retrospectively analyzed the data of 58 limbs of 37 patients (mean age, 43.0 years; range, 28-63 years; male, 91.9%) with Buerger's disease with CLI who were treated with AWBMSCT. We analyzed Rutherford category, pain score, pain-free walking time (PFWT), total walking time (TWT), ankle brachial pressure index (ABPI), and toe brachial pressure index (TBPI), and investigated wound healing and occurrence of unplanned amputations. The mean follow-up duration was 11.9 ± 7.2 months (range, 0.9-23.9 months) and 100%, 72.4%, and 74.1% of patients were available to follow-up 1, 3 and 6 months after AWBMSCT, respectively. At 6 months, patients demonstrated significant improvements in Rutherford category ($P < 0.0001$), pain score ($P < 0.0001$), PFWT ($P < 0.0001$) and TBPI ($P < 0.0001$). ABPI was increased compared to baseline, but the difference was not significant. A total of 76.5% ischemic wounds achieved complete or improved healing. AWBMSCT is a safe and effective alternative or adjunctive treatment modality to achieve clinical improvement in patients with CLI.

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