Conclusions: This new scoring system is useful for the risk stratification of wound healing in patients with CLI.

TCT-527
What are the Predictors of Wound Healing in Patients with Critical Limb Ischemia with Tissue Loss following Successful Endovascular Therapy?
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Background: Sometimes we cannot achieve wound healing in patients with critical limb ischemia (CLI) with tissue loss even after successful endovascular therapy (EVT). Multiple factors including patient background, intervention outcomes, and also wound characteristics are associated with wound healing. Therefore we evaluated predictors of wound healing in CLI after successful EVT.

Methods: Between April 2012 and April 2014, 179 patients (217 limbs) with CLI classified to Rutherford 5 or 6 were treated with EVT in our institute. Of these, 128 patients (146 limbs) were successfully treated. Successful EVT was defined as revascularization of achievement of direct blood flow to the wound evaluated by digital subtraction angiography just after EVT. Each variables were analyzed using the univariate Cox proportional hazards model for wound healing. All variables tested in univariate analysis with p < 0.25 were included in multivariate Cox hazards model.

Results: The mean follow-up period was 21±17 months. Wound healing rates were 41%, 58%, 71%, and 72% at 3, 6, 12, and 18 months, respectively. Multivariate Cox proportional hazard analysis revealed that insulin use (HR 0.47, 95%CI 0.30-0.73, p=0.001), dependence on hemodialysis (HR 0.35, 95%CI 0.23-0.53, p=0.001), wounds located only at toes (HR 2.79, 95%CI 1.78-4.38, p=0.001), and revascularization basing on angiome concept (HR 1.53, 95%CI 1.16-2.02, p=0.002) were independent predictors of wound healing following successful EVT.

Conclusions: Achievement of direct blood flow to the wounds is an important factor for wound healing, but that is not enough. Insulin use, dependence on hemodialysis, and gangrene can be predictors of wound healing failure. Furthermore, wounds located only at toes and revascularization basing on angiome concept can be predictors of wound healing.