In the review written in this MJJ issue by Kirana et al., there are 60,000 amputations performed every year in Germany. The main factors of these amputations are diabetic foot (DF) or arteriosclerosis. It is well known that diabetes mellitus has a long term effect on vascular system that leads to many disabilities. Amputation of lower limb is still used for patients with untreatable diabetic foot, but stem cell therapy gives a new hope to the patients.

The pathophysiology of diabetic foot is strongly related with the dysfunction of endothelial system where oxidative stress plays an important role. Angiogenesis, an endogen bioengineering of vascular system is dependent on the function of endothelium. Remodeling of the extra cellular matrix (ECM), tubular formation and expansion of the surrounding vascular tissue are key elements of angiogenesis. Clinical studies in stem cells in many areas have been emerged tremendously. Some of these studies showed significant results. The authors of the review explain the background theories, modes and approaches of stem cell therapy with regards to diabetic foot.

REFERENCES


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