

16th European Dermatology Congress

June 07-08, 2017 Milan, Italy

Losartan ointment relieves hypertrophic scars and keloid: A pilot study

Keshvad Hedayatianfard, Ziai S A, Niazi F, Habibi I, Habibi B and Moravvej H
Shahid Beheshti University of Medical Sciences, Iran

Background: Keloid and hypertrophic scar are two types of fibrosis caused by extracellular matrix overexpression. Angiotensin II via AT1 receptor plays a key role in stimulation and development of collagen production and fibrosis. Less is known about the effects of angiotensin receptor blockers on reducing hypertrophic scar and keloid. It has been reported that expression of angiotensin II receptors is increased during wound healing. Several studies have shown that collagen content expression was inhibited by AT1 antagonists such as losartan.

Objective: The purpose of this research was to treat keloid and hypertrophic scar in patients by topical application of losartan potassium ointment.

Methods: A pilot single blind placebo-controlled clinical trial was designed and 33 healthy adult volunteers (Keloid=14 and hypertrophic scar=19) were randomly allocated between losartan potassium ointment and placebo groups. The patients used the ointments twice a day for 3 months and were evaluated each month for efficacy and adverse effects. Treatment was evaluated by Vancouver scar scale method before and 3 months after drug application.

Results: Out of the 33 patients included, 26 patients completed the treatment course. 7 patients of placebo group left the trial. Nobody left the study because of adverse effects. In losartan group, VSS scores decreased in comparison with placebo group, especially pliability score ($p < 0.001$). No scar return was observed in losartan group 6 months after treatment final time.

Biography

Keshvad Hedayatianfard is a PhD student of Pharmacology in Department of Pharmacology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. His field of interest is fabricating ointment, cream, nano-fiber, hydrogel and wound dressing for wound healing. He has three patents (Iranian patent).

keshvad_tam@yahoo.com

Notes: