

© 2018 International Journal of Nursing and Health Services

This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited

Letter to Editor

Short Report: The Moisture Balance with Aloe Vera Gel in Diabetic Wound Healing

Fahrianto Selamet; Andi Mayasari Usman; Rian Adi Pamungkas

^a Sahabat Wound Care Clinic, Polewali Mandar, West Sulawesi Province, Indonesia

^b Bina Generasi Health College, Polewali Mandar, West Sulawesi Province, Indonesia

^c Department of Nursing, Esa Unggul University, Jakarta, Indonesia

Correspondence: Fahri.sipit@yahoo.com

Diabetic foot ulcer (DF) is a chronic complication of diabetes mellitus (DM), which impact on the morbidity, mortality and quality of patients' lives (1). Of those patients with diabetes mellitus, approximately 15% to 25% developed to the foot ulcer (2). Beside has the infection and debridement of devitalized tissue downloading; the moisture imbalance becomes the factors of recalcitrant to healing. Moist wound healing is often contraindicated to the non-healable wounds. While wound care involves the debridement, bacterial reduction, and moisture balance in order to achieve the good granulation of the tissue development and adequate blood supply.

The principle of moist wound healing in diabetic wound healing was associated with how to select the dressing. This should be appropriate with the cause of the wound, location and depth of wound as well. The dressing should be able to manage the exudates, minimize the tissue sloughing and promote the balanced environment (3). Previous study found that both moist and hyper-hydrated wounds heal at a faster rate than those exposed to the air (4).

Aloe Vera Gel is a medicinal herb that used to maintain the moisture balance (5). This plant could stimulate the proliferation of cell, improve the collagen production and transversal connection as a result accelerates wound improvement (6). Aloe Vera Gel also composes

of anthracene hydroxyl derivatives, cellulose and various enzymes like oxidase, amylase, and catalase and also vitamins consisting of B₁, B₂, B₆, C, E, and folic acid, and minerals like calcium, sodium, magnesium, zinc (5).

Years of the experience with aloe Vera in patients with diabetic foot ulcer have showed the number of neutrophil, macrophage and fibroblast cells and the wound thickness in 14 days. This aloe Vera also could manage the pain at dressing changes and minimized scab formation for tissue sloughing in 28 days. I would have a fact-based evidence that has shown promising results through consistently of my observations. Obviously, A randomized controlled trial study of moisture Balance in Diabetic Wound Healing is needed. However, until these have been conducted, the wound healing of diabetic foot ulcer provides the information of the moisture balance with aloe Vera gel in diabetic wound healing.

Conflict of interest:

I declare that I have no conflict of interest.

Funding.

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References:

1. Centre for Clinical Practice at NICE (UK). Diabetic foot problems: Inpatient management of diabetic foot problems. National Institute for Health and Clinical Excellence (UK). 2011 (119).
2. Boulton AJM, Vileikyte L, Ragnarson-Tennvall G, Apelqvist J. The global burden of diabetic foot disease. *The Lancet*. 2005;366(9498):1719-24.
3. Timmons J, Chadwick, P. Right product, right wound, right time? *Diabetic Foot J*. 2010;13(2):62-6.
4. Ousey K CK, Rogers AA, Rippon MG. The importance of hydration in wound healing: reinvigorating the clinical perspective. *The Journal of Wound Care*. 2016;25(3):122-30.
5. Hashemi SA, Madani SA, Abediankenari S. The Review on Properties of Aloe Vera in Healing of Cutaneous Wounds. *BioMed research international*. 2015;2015:714216. PubMed PMID: 26090436. Pubmed Central PMCID: 4452276.
6. Surjushe A VR, Saple DG. . Aloe vera: a short review. . *Indian J Dermatol* 2008;53(4):163-6.