

Chronic Wound Care Management and Research

Effect of Aloe vera Gel, Calendula officinalis Ointment and Simple Prophylactic Sacral Dressings for Pressure Injury Development

Mahmood Baghdadi¹, Hossein Rafiei², Farnoosh Rashvand², Sonia Oveisi³

Authors affiliations:

1. Student Research Committee, Qazvin University of Medical Sciences, Qazvin, Iran;
2. Social Determinants of Health Research Center, Research Institute for Prevention of Non-Communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran;
3. Metabolic Diseases Research Center, Research Institute for Prevention of NonCommunicable Diseases, Qazvin University of Medical Sciences, Qazvin,

Abstract

Background and Purpose: Prophylactic dressings play a significant role in the prevention of pressure injury. However, no herbal products have been used in this regard, so far. Therefore, the present study was designed with the aim of comparing the effect of Aloe vera gel, Calendula officinalis ointment and simple sacral prophylactic dressings on pressure injury development in patients admitted to intensive care unit.

Materials and Methods: The sample of this clinical trial study consisted of 90 critically ill patients. Randomization was performed by head nurse in intensive care unit. Patients in group “A” received Aloe vera gel prophylactic dressing twice a day; patients in group “B” received Calendula officinalis ointment prophylactic dressing twice a day; and patients in group “C” received simple prophylactic dressing twice a day. The development of pressure injury was compared between these three groups after the intervention.

Results: Demographic variables were similar in all three groups ($p > 0.05$). The results showed that 3 patients (10%) who received the simple dressing, 2 patients (6.6%) who received the Calendula officinalis ointment dressing were wounded, while the development of pressure injury in patients who received the Aloe vera gel dressing was zero. The results of chi-square test showed that the frequency distribution of the pressure injury development in the two groups receiving Aloe vera gel and simple dressing was different. This difference was statistically significant ($p < 0.05$). However, there was no significant difference between the Aloe vera gel and Calendula officinalis ointment groups as well as the Calendula officinalis ointment group and the simple dressing.

Conclusion: The results of the present study demonstrated that using Aloe vera gel and Calendula officinalis ointment prophylactic dressing twice a day can be effective in prevention of pressure injury in patients admitted to intensive care unit.

Keywords: Aloe vera gel, Calendula officinalis ointment, critically ill patient, medicinal plants, prophylactic dressings