Honey dressing versus foam dressing on pediatric burns: Comparison of numbers of burn dressing change

Azman N, Hussein HL, Cheng SHJJ
Department of Plastic, Reconstructive & Aesthetic Surgery, KK Women's & Children's Hospital (KKWCH), Singapore

Introduction

The Department of Plastic, Reconstructive and Aesthetic Surgery in KKWCH consults an average of fifty-five pediatric burns a month, of which most patients require some form of dressing coverage. An average healing time for superficial to deep partial thickness burn is around four to six weeks using foam dressing. However a Cochrane review in 2017 on honey dressing has showed accelerated wound healing when compared to non-bacterial treatment[2]. It also has debriding action with antibacterial, anti-inflammatory and antioxidant properties[1]. As such, there was a need to review our current practice in managing burn wound to possibly include a dressing that accelerates wound healing.

Aim

Our aim is to compare the number of burn dressing changes needed for pediatric burn patients to heal, using either honey dressing or plain foam dressing.

Method

Retrospective data (Jan 2017 to Jan 2018) of pediatric patients with a total burn surface area (TBSA) between 1% to 10% with superficial partial to deep partial thickness were reviewed. Twenty patients with a frequency of twice weekly dressing change were selected. The age range of these patients were between 6 months to 12 years of age. Ten patients were treated with honey-dressing while the other 10 patients were treated with plain foam dressing.

Results

Patients on honey dressing took an average of 2-6 dressing change to heal, while those on plain foam dressing took on average of 2–8 dressing changes. 4 of the 20 patients had deep partial thickness burns, of which 2 patients were treated with honey dressing that healed within 6 dressing change. The other 4 were treated with foam dressing and Duoderm paste which healed within 8 dressing change. Patients who were treated with honey dressing had a pain score ranging from 6-10, while those treated with foam dressing had a pain score ranging from 4-6. One patient on foam dressing had an incidence of hypergranulation, while no incidence was reported in the honey dressing group.

While there is evidence to show moderate or high certainty that honey dressing accelerates wound healing as claimed in the Cochrane review[2], the use of honey should be further evaluated through a randomized controlled trial to ascertain its effectiveness and outcome in accelerating burn wound healing.

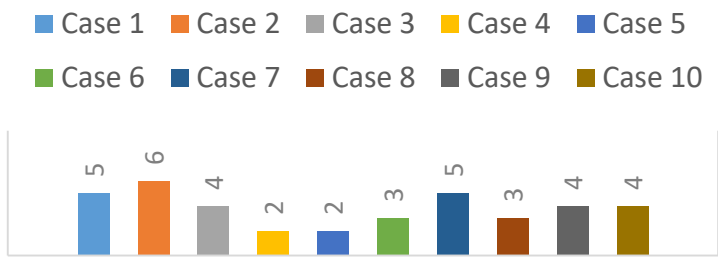
Honey dressing Case 1
Healed within 5 dressings

Honey dressing Case 2
Healed within 6 dressings

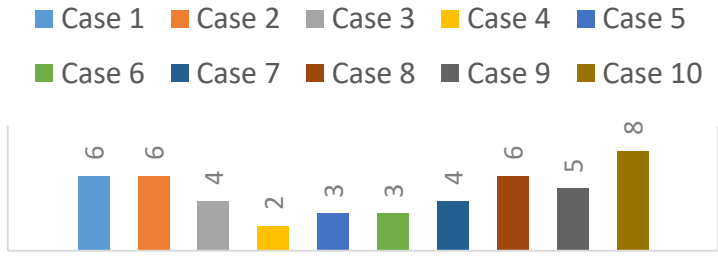
Foam dressing Case 1
Healed within 4 dressings

Foam dressing Case 2
Healed within 8 dressings

Foam dressing Case 3
Healed within 5 dressings



NUMBER OF DRESSINGS (HONEY)
Average number of dressings: 3.8



NUMBER OF DRESSINGS (FOAM)
Average number of dressings: 4.7

Contact: Nurazlin Azman, nurazin.m.azman@kkh.com.sg

Disclaimer
Did not receive any funding and financial support for these cases.
All pictures of people in this presentation are solely for education purpose and written consent has been obtained from the people involved.

References

1. Molan P. 2011. The evidence and the rationale for the use of honey as a wound dressing. *Wound Practice and Research.* Vol 19(4). Retrieved from http://honeywoundcare.com/userfiles/JAWMA%20review(1).pdf
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