

# IS AN ENZYME ALGINOGEL® EFFECTIVE IN THE MANAGEMENT OF ACUTE HOUSEHOLD BURNS?

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## Introduction

The aim of this study is to investigate whether an Enzyme Alginogel® (Flen Health) is beneficial to patients not only in terms of successful healing but also taking into consideration, infection, scarring, minimizing physical trauma and pain and discomfort during dressing changes.

## Method

Ten patients with burns were chosen for the study. Six of the them had burns caused by hot cooking oil and four of them by using caustic soda in an effort to clean household pipes. Assessment of the patients consisted of the following parameters:

- A) Burns percentage and location was noted
- B) Wound colonization and infection was assessed by doing a micro culture and sensitivity swabs on the first visit to the wound clinic, and also on day three and day eight following initial assessment.
- C) Pain was assessed using a numerical pain rating scale taking into consideration pain before, during and after dressing changes. Sleep was also assessed by asking the patient whether they could sleep at night or if they could not sleep; patients were asked to state the aetiology of inability to sleep (pain, psycho-social stress)
- D) All nurses were educated and trained how to use and apply the Enzyme Alginogel®.

## Results

The outcome for the ten patients were that all completely healed with no episodes of infection and no formation of biofilms were evident in this small study. The most significant result was that all patients reported a dramatic decrease in pain levels. On initial assessment patients reported pain between 8-10 on the numerical pain scale. Once the Enzyme Alginogel® was applied, the intensity of pain was reduced between two and three for all patients.

Arm 02/07/18



Arm 12/07/18



Leg 07/01/18



Leg 30/01/18



## Discussion

Burns present a huge challenging spectrum of wound trauma caused by thermal, chemical, electrical insult, friction and radiation. Burn injuries disrupt the integrity of the skin and according to the amount, depth and severity of the burns; they can be classified as superficial, partial thickness and full thickness injuries.<sup>1</sup> Silver dressings are widely used in the management of burns due to the effectiveness of silver ions against gram positive/negative bacterial and fungal infections.<sup>2</sup> However, the continuous development of new materials and dressings can influence dressing selection in terms of clinical and cost effectiveness and importantly, patient comfort.

## Conclusion

The clinical outcomes for all ten patients illustrate the effectiveness of using an Enzyme Alginogel® in burn wound management. In all cases wound healing was achieved with no delays and a dramatic reduction in pain. Further clinical studies are needed however, in order to substantiate the results of this study.

### References

1. Cleland H, (2012) 'Thermal Burns-assessment and acute management in the general practice setting' Aust. Fam Physician, vol 4. No.6 pp 372-375
2. Lansddown AB (2010), ' a pharmacological and toxicological profile of silver as an antimicrobial agent in medical devices' Adv. Pharmacol Sci 910686