Treatment of burn blisters: To de-roof or leave intact?

In normally well patients who have sustained a superficial dermal or mid dermal burn resulting in a blister, what is the best form of treatment, to de-roof the blister or leave it intact?

Introduction

There are conflicting ideas about how to manage burn injuries, in particular those resulting in fluid-filled blister. Findings from Payne & Cole (2012) suggest that, due to a lack of relevant research, nurses base their decisions on burn blister management on previous experience or colleague's opinions rather than on evidence or best practise.

In particular, when treating superficial dermal and mid dermal burn blisters, there is conflicting evidence for two methods of treatment. These methods are to either de-roof the blister exposing the wound bed beneath, or to leave the blister intact and allow the wound to heal without intervention (Tiwari, 2012).

There is strong evidence to support de-roofing superficial dermal and mid dermal burn blister wounds in order to aid healing (Murphy & Amblum, 2014).

Recommendations

- De-roofing of superficial dermal and mid dermal burn blisters should be considered as best practise for management of these injuries. It should be performed on a case by case basis, as this form of treatment may not be suitable for some patients.
- If de-roofing is not an appropriate treatment in some instances, aspirating the blister fluid should be considered as a second form of treatment.
- Nurses and medical staff should be provided with up to date information on what is best practise when dealing with burn injuries.
- The decision to de-roof a burn blister should be explained thoroughly to the patient. As this method may initially cause the patient more pain and then cost more money to have to wound regularly re-dressed and assessed by medical professionals.

Implications

- Once a burn blister is de-roofed, the exposed wound will require ongoing treatment and dressings to aid healing. The need for more dressings will cost the patient and health provider more money and more time will be taken up managing the wound.
- Debriding a superficial dermal burn blister will initially cause more pain for the patient. Removing the devitalised layer of skin will expose the fresh wound and already exposed nerve endings.

Conclusion

There is strong evidence to support de-roofing superficial dermal and mid dermal burn blister wounds. Blisters larger than 6mm should be de-roofed as it will relieve pressure from the fluid under the skin and remove the plasma-rich protein that would otherwise provide a perfect breeding ground for bacteria (Rowley-Conwy, 2012). The research shows that the benefits of this method of treatment out way the disadvantages and de-roofing should always be considered as the first form of treatment for these type of wounds on a case by case basis.

References

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