

PSYCHOLOGICAL WELLBEING – SCAR

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Aim

To review whether psychological wellbeing can be enhanced by improving the appearance of scar tissue, post injury.

Background

Scar management is not routinely administered for trauma wounds that occur during childhood, however, they can have an effect on how an individual perceives themselves and impact on how they dress.

Scars are the result of an injury to both the dermis and epidermis (and/or deeper tissue). Post proliferation the skin attempts to normalise during the final maturation stage of healing.

Normal remodelling of the skin can take up to 12 months, and depending on how the wound was left to heal, e.g left open or closed with sutures, can also impact on the overall outcome. Scars generally improve over time, becoming less red/pink as blood vessels are removed from the area through apoptosis and flatten as the balance between the synthesis and degradation of collagen is completed.

Routine scar management^[1] is primarily based on the use of silicones following wound closure to occlude and hydrate the scar tissue thus reducing the production of excessive collagen^[2].

Methodology

This case study reviewed the use of a silicone gel sheet and hydration gel-cream and how improvements in scar tissue can have a positive impact on a child's psychological wellbeing.

A girl aged 7, sustained a traumatic injury to her right shin, measuring 4x2cm, requiring 6 sutures (2nd August 2013, Photo 1). Following suture removal the wound dehisced and the resulting scar area remained bright red and raised. The scars prominence resulted in the child refusing to wear dresses or shorts throughout the summer.

A dual therapy was initiated (November 2013, Photo 2) comprising a silicone gel sheet* and a hydrating gel-cream*. Tolerance to the silicone was built up to recommended wear times and the hydrating gel-cream was applied in between with an hour between the application of the hydrating gel-cream and the silicone sheet to ensure optimum results.



Photo 1 - Aug 2013



Photo 2 - Nov 2013

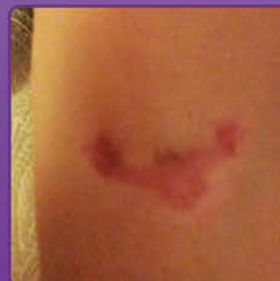


Photo 3 - Jan 2014



Photo 4 - Apr 2014

Results

Within 6 weeks there were considerable improvements in the elasticity, smoothness, thickness and scar appearance (Photo 3). After a total of 5 months of dual therapy the scar had significantly decreased in size and the overall appearance of the scar was flatter, paler and acceptable to the child, (Photo 4).

The child applied the products herself, stating "It makes me feel better, it's working. I put it on myself and I try to remember to do it every day. I'm really happy that the scar is fading so that I can wear nice dresses next summer without the ugly scar".

Conclusion

Scar management should be initiated immediately after wound closure and should continue until the scar no longer causes a problem both physically and psychologically. Silicones gel sheets are shown to provide pressure at the site of scarring and may be used with pressure garments. The hydration gel-cream has been shown to provide the same occlusion as silicone gels whilst also providing hydration, and improving the overall appearance of the scar. Could a combined therapy of both a silicone gel sheet and a hydration gel-cream therefore be the future?

References

1. Thomas A. Mustoe, M.D., Rodney D. Cooter, M.D., et al. (2001) International Clinical Recommendations on Scar Management, Plastic and Reconstructive Surgery, Vol 110, No. 2 (560-571)
2. Hoeksema H, et al. (2013) Scar management by means of occlusion and hydration: A comparative study of silicones versus a hydrating gel-cream. Burns. <http://dx.doi.org/10.1016/j.burns.2013.03.025>