

The benefits of Advasil Conform[®] in the treatment of scar management

Written by Connie Traynor - Sister Cosmetic Nurse Advisor, BMI Ross Hall Hospital & Joy Bell - Sister TVN, Ross Hall Hospital

Introduction

The aim of this case study is to illustrate the benefits that can be derived from the application of Advasil Conform[®] (Advancis Medical), a silicone sheet dressing used in the treatment of scar management. A 47 year old lady underwent bilateral Brachioplasty and bilateral thigh lift surgery following substantial weight loss. This patient has Multiple Sclerosis, which is managed with Methotrexate treatment. Nine months post surgery and her wound scars remained red and raised, consequently she was keen to use a silicone dressing to try and improve the cosmetic appearance of the scars on both of her arms.



Figure 1



Figure 2

Method

Prior to commencing treatment written consent was obtained from the patient in order to photograph her arms and provide us with a pre-treatment record, as illustrated in figures 1 and 2. She commenced using Advasil Conform[®] dressings on 7th July 2011. Advasil Conform[®] is a conformable sheet of medical grade silicone with a polyurethane outer

layer, which facilitates a longer wear time. Initially the patient applied the silicone dressing on to both arms for one hour each day, until she had built up the wear time of the dressings to six hours during her first week of treatment. However, as she did not experience any side effects from the dressing she decided to increase the wear time to 24 hours thereafter and only removed the dressings in order to shower. The patient found that one strip of the silicone dressing lasted her a week and she continued to use the silicone sheets for a period of six weeks.

Wound scar management can be a challenge, even when "normal" wound healing occurs. Research indicates that refashioning of underlying collagen and elastin fibres



Figure 3



Figure 4

can take up to eighteen months.¹ For patients who are conscious of their wounds this is a long time, especially if their wounds are located in a visible part of the body. Perhaps of more significance is the management of wounds that are susceptible to Hypertrophic or Keloid scarring, which are more challenging. In both these types of scarring there is an "excessive deposition of collagen during the

inflammatory, proliferative and maturation phases of wound healing", which ultimately contributes to their "chronicity and pervasiveness".²

The armoury of treatment modalities available to reduce scarring ranges from cortisone injections, laser treatment, cryotherapy, pressure dressings, and a variety of topical drug treatments, all of which have resulted in variable success. Nevertheless the use of silicone sheets like Advasil Conform[®] applied to a closed wound post operatively is the most common first-line treatment option.

The exact mechanism of how silicone sheets work is not fully understood. The consensus of several research papers supports the theory that silicone sheets work by increasing

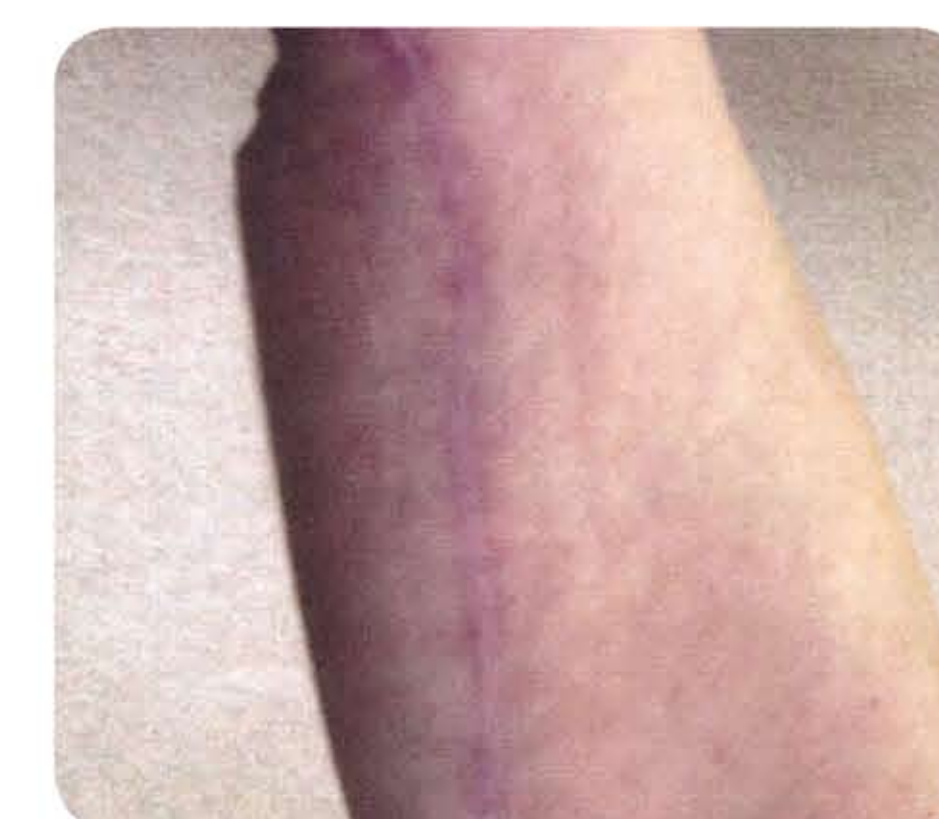


Figure 5



Figure 6

the surface temperature of the skin and that the occlusive nature of the silicone sheets promote hydration of the stratum corneum. However there is some debate about whether the silicone sheets impact on collagenase activity and oxygen tension at the skin's surface. Nevertheless, the effect of applying silicone sheets or gels causes scar tissue to "soften and flatten".^{4,5,6}

Conclusion

This case study has demonstrated that Advasil Conform[®] dressings are easy to apply, remain in place and helped to reduce scarring. Consequently our patient was happy with the cosmetic appearance of her wounds at the end of the trial. However the authors acknowledge the limitations associated with case studies and would advocate that a larger more robust trial is undertaken to investigate the efficacy of Advasil Conform[®] in the treatment of other similar wounds and of Keloid and Hypertrophic scarring. Such a trial would help to consolidate existing evidence to support the use of silicone sheets and help to overcome elements of bias, a criticism associated with some previous studies.

References

¹ S Porter The role of the fibroblast in wound contraction and healing. Wounds-UK (2007) Vol. 3 (1) pp33-40.

² G Juckett, H Hartman-Adams Management of Keloids and Hypertrophic Scars American Family Physician (2009) Aug 1: 80 (3) pp253-260.

³ Baker R, Urso-Baiarda F, Linge C, Grobbelaar A (2009) Cutaneous Scarring: A Clinical Review. Dermatology Research and Practice Vol 2009 ID 625376.

⁴ Ibid 2

⁵ Mustoe A, (2008) Evolution of Silicone Therapy and Mechanism of Action in Scar Management. Aesth Plast Surg (32) pp 88-89.

⁶ Meuleniére F (2007) Using a soft silicone dressing (Mepiform) to prevent scarring in an acute traumatic wound. Wounds-UK Vol. 3 (4) pp134-135