Case study

The use of PICO◊ single-use negative pressure wound therapy (sNPWT) on a 2-year-old non-healing foot ulcer

Shelbea Randall, Community Healthcare Assistant, Dorset Healthcare

Presentation

A 77-year-old male presented with a pressure ulcer to the plantar aspect of the left heel. The wound was noticed when he was being fitted for orthotics for his shoes. The patient has a medical history of hypertension, vascular associated Parkinson's and had previously been seen by a practice nurse for venous disease management. On presentation to the community healthcare assistant, the wound measured 3.7x3cm with 80% granulation tissue and 20% slough (Figure 1). The granulation tissue looked unhealthy with maceration to the wound edges due to the moderate exudate levels. The patient reported his pain as being 6 out of 10 (10 being the highest), which was having an impact on his sleep and mobility.

Treatment

Treatment up to this point had consisted of IODOFLEX◊ cadexemor dressing with a superabsorbent pad over the top. PICO sNPWT was applied at this appointment and after 7 days of treatment, the wound had reduced in size to 3.5x2.3cm. Exudate levels remained moderate, but the patient's pain score reduced to 1 out of 10. The patient stated that he now had no pain, and that he could sleep better due to the pain level reduction.

After 2 weeks, the wound showed positive progression towards healing (Figure 2). It measured at 2x1.8cm with 100% granulation tissue present. Exudate levels were still at a moderate level and the patients pain levels stayed 1 out of 10.

By the end of week 3 of sNPWT, the wound had further reduced to 2x1.5cm, exudate levels had reduced to low, and the patients pain levels remained at 1 out of 10.

The patient was then admitted into hospital where PICO sNPWT was discontinued and the patient was treated under the care of a Podiatry team.

The aim for this patient was to reduce the wound size by 40% using PICO sNPWT, this was achieved within 3 weeks of the use of therapy.

The wound was reviewed again 7 weeks later where it was documented as being fully healed.

3.7x3cm, 80% unhealthy granulation tissue with 20% slough. Exudate levels moderate

Figure 1

Challenges

The clinician reported that their biggest challenge was applying a dressing to a difficult anatomical location.

On the patient's heel was a large indented fatty pad to the lateral aspect, this had been a challenge when applying conventional dressings and made the clinician uneasy about trying to achieve a seal with sNPWT. The clinician was able to achieve a seal to the viable tissue which then allowed therapy to remained in place for 7 days.

The clinician felt that achieving this seal was part of the reason that the wound showed good healing rates.

Outcomes

The patient reported a reduction in pain caused by the wound within 7 days of treatment with PICO sNPWT

A wound that had been present for 2 years healed within 10 weeks following the use of PICO sNPWT

Assessment

2 weeks

after initiating treatment with PICO◊ sNPWT

Wound measured at 2x1.8cm with 100% granulation tissue present. Exudate levels were still at a moderate level and the patients pain levels stayed 1 out of 10.

Figure 2

10 weeks

Final assessment

The wound was reviewed again 7 weeks later where it was documented as being fully healed.

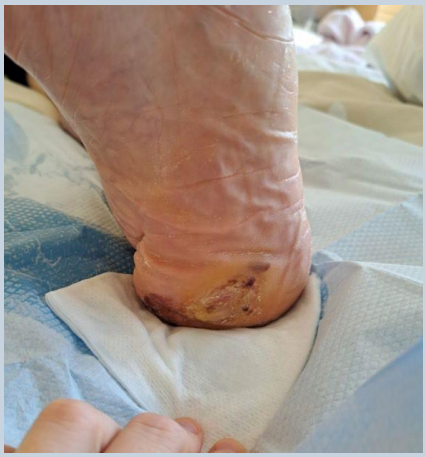

Figure 3

Quality of Life

The patient was asked prior to treatment with PICO sNPWT what their top 3 main issues were which were related to having a wound. The patient reported that pain, exudate management and reduced mobility were the things that were most affected. The patient had reported a pain score initially of 6 out of 10, however after 7 days of therapy had reported a significant reduction to a score of 1 out of 10. This score remained consistently low throughout treatment to the point of healing. This reduction in pain had further benefits to the patient's ability to sleep.

Conventional dressings previously used had left the wound feeling 'boggy' when mobilising, the patient reported a reduction in this feeling when sNPWT was applied. Not only did PICO sNPWT manage the exudate well, but it also allowed the patient to mobilise much safer around his own home.

Overall, both the patient and the clinician were happy with the progress that the wound made whilst receiving therapy.

Summary

This case study demonstrates the healing journey of a patient who suffered with a wound to the left heal which had been present for 2 years. Conventional dressings had not shown any signs of being effective towards a healing trajectory in that time, therefore treatment was changed to PICO sNPWT. The use of sNPWT had a positive impact on the patient's wound healing trajectory and helped to kick start wound healing. The application of PICO sNPWT also helped towards reducing the patient's pain levels from 6 out of 10 to 1 out of 10, allowing him to sleep and mobilise better.

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Advanced Wound Management, Smith & Nephew Medical Ltd, 101 Hessle Road, Hull, HU3 2BN, UK.
Croxley Park, Building 5, Hatters Lane, Watford, Hertfordshire WD18 8YE T +44 (0)1923 477100 F +44 (0)1923 47710
Smith+Nephew Kay Fiskers Plads 9 2300 København S, Denmark T: +45 45 80 61 00
Smith+Nephew Kroks Ättsfabriker 39 431 37 Mölndal, Sweden T: +46 31 74 65 800
Smith+Nephew Snarøyveien 36 1364 Fornebu, Norway T: +47 66 84 20 20
Smith+Nephew Lentäjäntie 1 01530 Vantaa KFinland T: +358 (0)207 866 333

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