**OBJECTIVE**

Treatment goal was to close 13.5 cm x 2.5 cm x 1 cm deep infected diabetic foot ulcer in 67 yr old female patient. The wound, continuing to enlarge for 16 weeks, was previously managed with saline rinses, surgical debridement and toe amputation. The wound was then managed with povidone-iodine ointment, packed with silver hydrofiber and covered with gauze without success. A new dressing and treatment regime was needed to eliminate wound slough, manage exudate, reduce oedema, kill microorganisms in contact with the dressing, speed up healing, and provide effective pain relief. The dressings also needed to be intact when removed from cavities and tunnels. Multifunction silver containing polymeric tunnel rope, cavity filler and membrane dressings were selected because the unique features and components of the dressings claimed to serve the above functions, and were corroborated with published studies and posters.1,3

**METHOD**

On 4 June, the wound was irrigated with 0.9% normal saline and sharp debridement was performed. Silver containing polymeric rope, cavity filler and membrane dressings covering the wound were started. The ulcer was 75% covered with slough, measured 13.5 cm x 2.5 cm x 1.5 cm (depth) with sinus 2.5 cm in depth located at the heel and presented with copious purulent discharge. 12 June an abscess appeared deep underneath the heel which was incised and drained, then it was packed tightly for 2 days with povidone-iodine gauze in order to control bleeding. Afterwards, the polymeric membrane dressing regime resumed. Later, steri-strip was applied across the wound to prevent separation of the wound during daily walking. A hydrocolloid dressing was used underneath the steri-strip to prevent damage of fragile periwound skin caused by the traction of the steri-strip. Initially the polymeric membrane dressings were changed once daily for 4 weeks and gradually on alternate days for another 2 days before the patient was discharged from hospital. Afterwards, the dressing was changed twice per week in outpatient clinic for 12 weeks and finally once per week until the wound closed. Silver polymeric membrane dressings were used to close to reduce risk of wound deterioration.

**RESULT**

There was significant improvement in the wound as soon as the silver polymeric membrane dressings were begun. Wound was quickly cleared of infection and slough accompanied by rapid growth of granulation tissue. The wound closed in 18 weeks with good linear union. The patient’s pain was well addressed through use of the dressing allowing her to resume limited daily walking activities, which were essential for her daily household work. Once polymeric dressings were initiated, her dressing changes pain score was reduced from 8 to 2. Persistent wound pain score was reduced from 5 to 1. High absorption capacity of the dressing helped reduce the frequency of dressing change across the course of treatment from daily to twice per week and then weekly. The design of the polymeric rope was appreciated because the rope could be removed without concern of any residue being left inside the tunnel.

**CONCLUSION**

Silver polymeric membrane dressings are excellent dressings for closing diabetic foot ulcers when combined with adequate blood glucose control and patient compliance. Dedication of the professional team, compliance of the patient, regular wound assessment, adequate blood glucose control and use of appropriate dressing products were all the essential components accounting for the successful outcome of this limb salvage case.

REFERENCES


**RESULTS**

3 July: Wound is much cleaner forming healthy granulation tissue. Notice how healthy the rest of the foot looks.

16 October: Closed after only 18 weeks.

30 October: Patient happy she can wear sandals!

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