



The Utility of Transforming Powder Dressings in the Management of Stage 4 Chronic Venous Leg Ulcers



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Introduction

Venous leg ulcers (VLUs) remain a public health issue with significant economic and psychosocial impacts. Due to chronicity and high recurrence rate, VLU care is costly for the individual and the healthcare system. Yearly care costs average between \$13,653 - 18,986 per patient. Standard treatment options tend to utilize compression therapy or direct wound care. There is no consensus as to which dressings promote wound healing significantly better than others do.

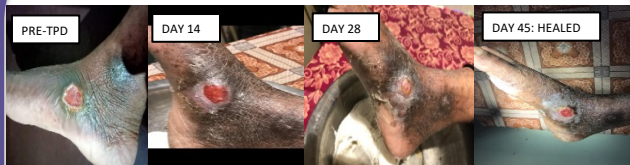
Transforming powder dressing (TPD) forms a non-occlusive barrier on the wound bed that helps optimize wound moisture to promote healing. Extended wear time reduces dressing changes, infection risk and complications, presenting a promising new treatment modality.

Materials and Methods

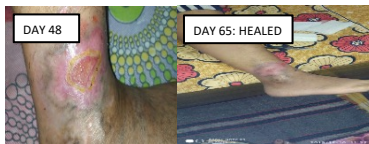
We used a novel methacrylate-based transforming powder dressing, which transforms in-situ to a shape-retentive wound matrix once in contact with moisture. (Altrazeal® TPD, ULURU Inc.).

Patients had chronic, Stage 4 VLUs that failed to heal after standard of care therapies. Days to healing, number of dressing changes, days between dressing changes, and pain scores were recorded.

Results



62-year-old male with a non-healing VLU. Wound prior to TPD is shown on the left. The wound at Day 14, Day 28, and the completion of wound healing at Day 45 are also shown.



48-year-old female with a non-healing VLU for seven months. Wound prior to application of TPD is shown in the top left image. The wound at Days 15, 30, 48, and 65 are shown sequentially. A significant reduction in wound size is visible after the second dressing change and complete wound closure was observed within 60 days.



54-year-old female with a painful, non-healing VLU for two years. Wound prior to TPD application is shown followed by Days 14, 30, 50, and 70. Patient expressed significantly less pain after second TPD change. Wound reduction was visible by the 3rd change with complete wound closure by Day 70.

Conclusion

TPD presented a safe and effective modality for treatment of chronic VLUs; significantly reducing the duration of healing, patient pain and the number of dressing changes.

References

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