

Clinical Practice Evaluation and Usage of a Novel Absorbent Dressing

Dot Weir, RN, CWON, CWS, and Melodie Blakely, PT, MS, CWS

Introduction

Wound bed preparation and moisture balance are mainstays in chronic wound management. A thorough assessment of the wound bed and surrounding skin, coupled with an overall consideration of the patient's condition and co-morbidities, directs clinicians toward decision-making relative to topical management options. Because wounds change as they evolve, care frequently requires access to multiple options for dressing management. Frequently in clinic practice, we must seek dressings that can be left in place for extended lengths of time due to the use of compression wraps and/or patients' lack of ability or resources to change their own dressings.

We evaluated a unique composite dressing with layers of viscose, polyester, and cotton, the combination of which provides capillary action that lifts and moves exudate and debris away from the wound surface (Drawtex®, Bier Drawtex Healthcare, Ltd., Pretoria, South Africa). Drawtex® is described in the company literature as a hydroconductive wound dressing with Levafiber technology. The case study's objective was to use the dressing in all wound types, levels of exudate, and tissue types to determine where this unique material may fit into our dressings armamentaria.

The dressings were easy to cut and custom-fit to the wound bed or tract. Our early experience began with highly exudating wounds, with and without undermining and tunneling; here, we found it remarkably effectively transferred the exudate into a secondary dressing and reduced exudate build-up on the surface and in the deeper compartments of the wounds. We also observed that it benefitted the wound by creating an autolytic environment that removed adherent slough either as the primary method of debridement or as an adjunct to instrument debridement. Using this feature of the material, we also realized success in reducing hypergranulation tissue.

As we expanded our usage, we approached lower exudating wounds with a bit of trepidation due to concern about potential adherence to the wound bed and the possibility of causing pain and trauma at the wound site. Our experience showed that, if the dressing appeared to have adhered to the wound bed, we could readily lift it off after moistening it for a short time with normal saline. We eventually settled on the combination of using the product with a transparent film or foam cover dressing. This created a humid atmosphere, which reduced the drying out that would occur when we used gauze as a secondary dressing.

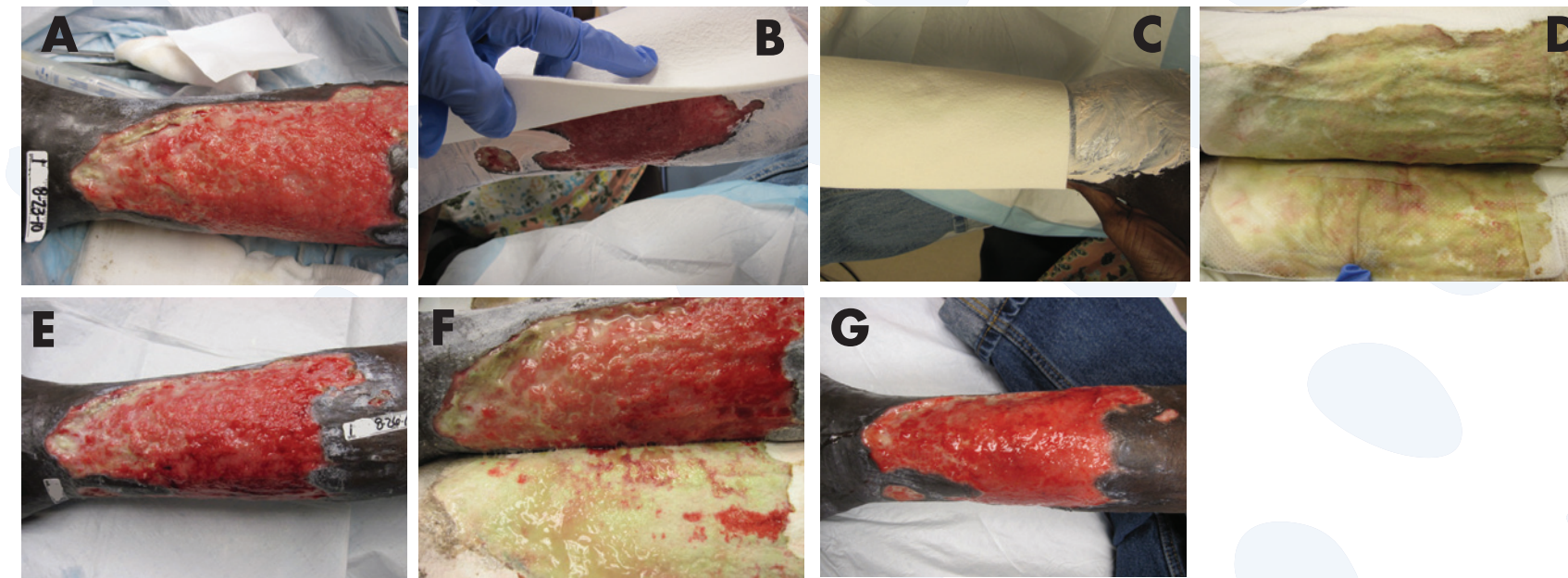
In summary, we found the material to be extremely versatile and appropriate for multiple wound types and levels of exudate. The following cases illustrate 4 examples of selected uses from our evaluation.

References

Russell L, Evans A. Drawtex: a unique dressing that can be tailor-made to fit wounds. *Br J Nurs*. 1999;8(15):1022-1026. Product information. Drawtex. Available at: www.drawtex.com (accessed 9 Dec, 2010).

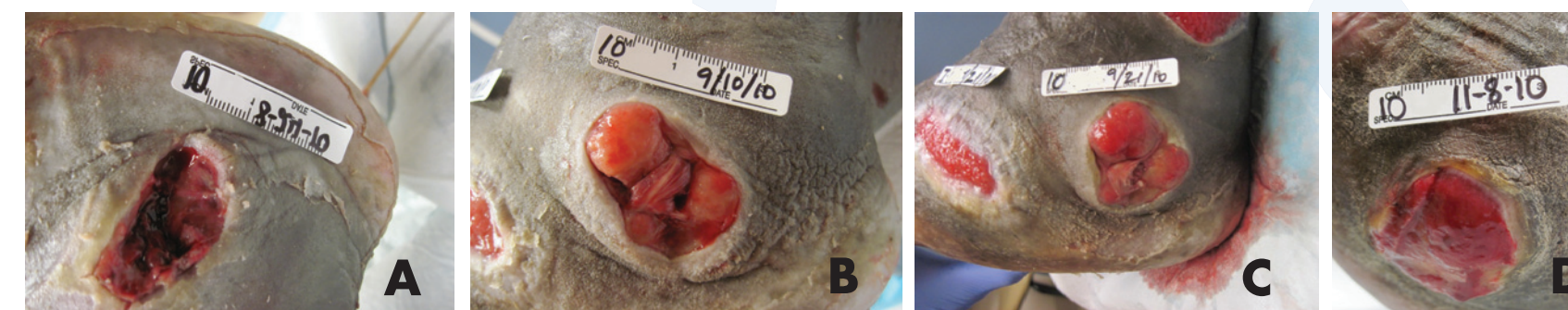
Case 1: Absorbency and Wicking of Exudate

79-year-old male with history of type 2 diabetes, gout, and 1-year history of LE ulcer increasing in size diagnosed via biopsy at previous point of care with vasculitis versus pyoderma gangrenosum. Patient had a history of pathergy with debridement. Patient was placed on oral steroid therapy. Initial 3 weeks of treatment while waiting for medical records from multiple sources was silver hydrofiber, absorbent dressings and multilayer compression. On August 23 (Photo A), we began using Drawtex with barrier ointment to protect skin from exudate and a multilayer compression wrap, which was changed twice weekly. Subsequent Photos (B-F) show dressing application and removal, clearly illustrating absorptive properties and vertical wicking of dressing. At day 10 (Photo G), wound was clean with less exudate and a calcium alginate was used.



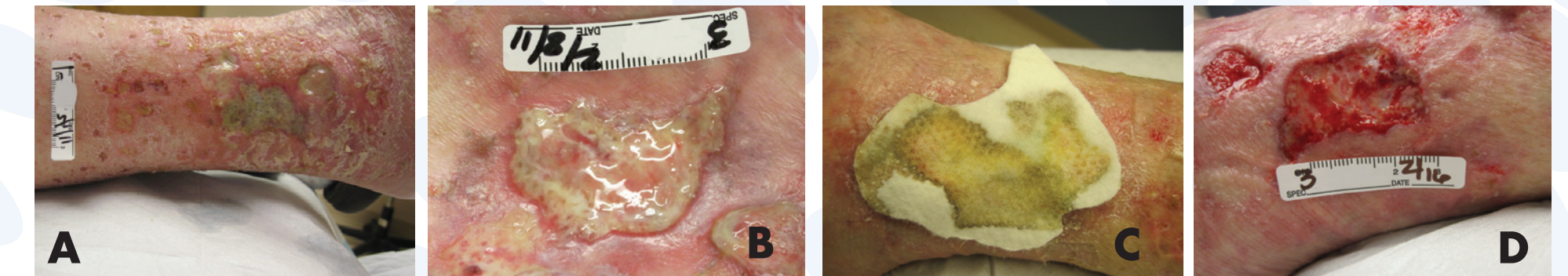
Case 2: Unhealthy Hypergranulation Tissue

42-year-old female, type 1 diabetes, ESRD, history of BKA on right secondary to necrotizing fasciitis, and severe Charcot deformity of the left, with total destruction of the ankle. This caused her to essentially bear her full weight on the distal head of the fibula when weight-bearing. Patient had a history of multiple long-standing ulcers to entire left foot. Photo A shows post-debridement and drainage of abscess to left lateral ankle. Patient primarily used wheelchair but used left foot when necessary to pivot out of chair. NPWT was used, bridging all the ulcers to improve tissue; however, the fact that the lateral ankle ulcer was over the primary weight-bearing area of the foot resulted in bulging tissue and tunneling 1.6 cm in multiple directions (Photo B). Drawtex was initiated under compression wraps to all ulcers and remaining Photos (Photos C, D) illustrate reduction in bulging tissue and resolution of tunneling after 7 weeks. On November 8, the wound bed was prepared for utilization of bioengineered tissues, which resulted in ultimate healing.



Case 3: Debridement of Adherent Slough

54-year-old female, heavy smoker with hypertension and otherwise unremarkable past medical history. History of painful venous ulcer greater than 1 year, has had intermittent care due to uninsured status. Initial presentation was on February 1, 2010 (Photo A). Debriding with instruments was difficult due to extreme pain (10/10). An antimicrobial foam used under multilayer compression resulted in little improvement in Week 1. Drawtex was initiated in Week 2 (Photo B). Photo C (taken in Week 3) shows the dressing before removal, illustrating vertical transmission of exudate, which resulted in loosening of adherent slough to the extent that ultrasonic debridement was able to be tolerated, ultimately resulting in a much cleaner wound bed.



Case 4: Avulsive Skin Tear

87-year-old male, severe rheumatoid arthritis, being seen primarily for abdominal wound with fistula. He sustained an avulsive skin tear to the left upper forearm and had been covering it with a bandaid before discovery at clinic (Photo A). Drawtex was initiated and covered with a transparent film dressing to prevent drying. Photographs show weekly dressing changes, with no difficulties with removal or adherence (Photos B-D).

