

Treatment Options for a Medically Compromised Patient with a Traumatic Leg Ulcer with Recalcitrant Yellow Slough

Elizabeth Bodie Gross, RN, APN, MS, MBA, WCC

MEDICAL HISTORY

Patient is an 83-year-old female that has Congestive Heart Failure, Chronic Renal Failure, and Osteoarthritis. In April of 2007, patient diagnosed with renal failure. Patient began dialysis three times per week on an outpatient basis.

On June 9th, a nurses aide on the dialysis unit hit the patient's left lateral malleolus with a wheelchair footrest. Left lower leg (from patella to ankle) became ecchymotic. Emergency room physician was unable to close wound because skin was extremely thin and unstable. Initial treatment was a Wet to Dry dressing. Subsequently, patient underwent 5 weeks of IV antibiotic treatment.

OBJECTIVE

1. Identify a wound treatment that removes recalcitrant yellow slough in a wound bed so that an ulcer can heal.
2. Monitor the wound bed on a weekly basis to properly document the healing process.
3. Identify treatment options to maintain surrounding skin integrity.

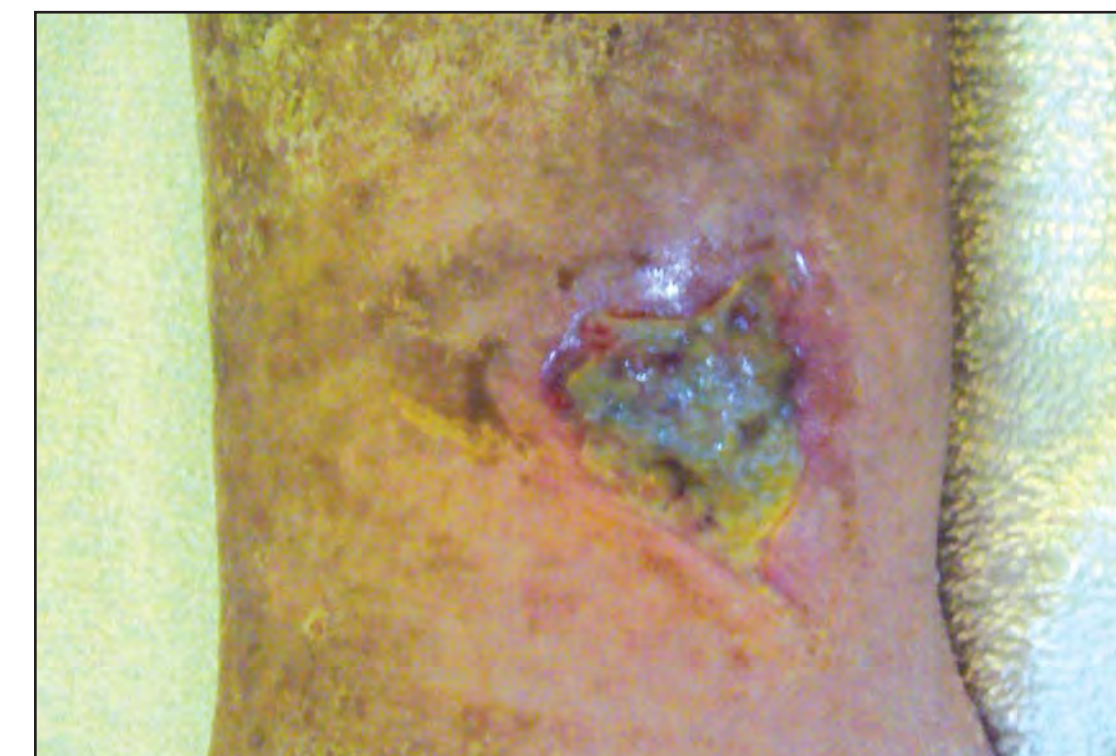
CONCLUSION

Since July, three wound treatments were utilized (Papain ointment; Tender Wets; and Active *Leptospermum* Honey Alginate) to debride recalcitrant yellow slough in a traumatic ulcer. Due to the patient's medical condition (CHF and Renal Failure), the healing process has been severely compromised. During the first 8 weeks, standard debriding techniques were utilized without any significant change (see table at right) in the amount of thick, yellow slough in the wound bed. However, after a week of using the Active *Leptospermum* Honey Alginate Dressing, the wound bed has changed significantly. Over 25% of the wound bed is totally free of the recalcitrant yellow slough and has red, granulating tissue along distal edges. In the wound bed where there is diffused yellow slough, there are several red, granulating islands. The wound has diminished in size and re-epithelialization is evident.



WEEK	DATE	DESCRIPTION OF ULCER	MEASUREMENT	SLOUGH DESCRIPTION	TREATMENT ORDERED
1	7-17-07	Left lateral malleolus ulcer covered entirely with yellow slough. Unable to move slough. Surrounding tissue – ecchymotic & extremely dry (edema 3+)	4 cm x 3 cm (depth unable to measure due to slough)	Thick, yellow slough. Adheres to entire wound bed.	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Papain ointment • Hydrophillic Wound Dressing with Vitamin A, Vitamin B₆, Calcium, and Magnesium
2	7-25-07	Left lateral malleolus ulcer – 60% of wound bed is covered with yellow slough. Surrounding tissue – ecchymotic and extremely dry (edema 2+)	4 cm x 2.75 cm	Thick, yellow slough in 60% of wound bed.	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Tender Wets • Non-adherent, padded dressing
4	8-6-07	Left lateral malleolus ulcer – 50% of wound bed is covered with yellow slough. Small amount of granulating tissue. Surrounding tissue – ecchymotic and extremely dry (edema 3+)	4 cm x 2 cm x 0.5 cm	Thick, yellow slough in 50% of wound bed.	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Tender Wets • Non-adherent, padded dressing
5	8-13-07	Left lateral malleolus ulcer – 70% of wound bed is covered with diffused yellow slough. Small amount of granulating tissue. Surrounding tissue – slightly ecchymotic and extremely dry (edema 2+)	4 cm x 1.8 cm x 0.5 cm	Thick, yellow slough in 70% of wound bed.	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Tender Wets • Non-adherent, padded dressing
6	8-20-07	Left lateral malleolus ulcer – approximately 70% of wound bed is covered with diffused yellow slough. Small amount of granulating tissue. Surrounding tissue – slightly ecchymotic (edema – 3+)	3.6 cm x 2.8 cm x 0.2 cm	Thick, yellow slough in 70% of wound bed (diffused).	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Papain ointment • Hydrophillic Wound Dressing with Vitamin A, Vitamin B₆, Calcium, and Magnesium
7	8-27-07	Left lateral malleolus ulcer – approximately 70% of wound bed is covered with diffused yellow slough. Small amount of granulating tissue. Surrounding tissue – pink, epithelialized tissue (edema – 2+)	4 cm x 3 cm x 0.1 cm	Thick, yellow slough in 70% of wound bed (diffused).	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Papain ointment • Hydrophillic Wound Dressing with Vitamin A, Vitamin B₆, Calcium, and Magnesium
8	9-3-07	Left lateral malleolus ulcer – approximately 70% of wound bed is covered with yellow slough. Small amount of granulating tissue. Surrounding tissue – pink, epithelialized tissue (edema 2+)	3.4 cm x 3 cm x 0.1 cm	Thick, yellow slough in 70% of wound bed (diffused).	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Active <i>Leptospermum</i> Honey Alginate Dressing • Non-adherent, padded dressing
9	9-10-07	Left lateral malleolus ulcer – approximately 45–50% of wound bed is covered with diffused yellow slough with several red, granulating islands; and 25% of wound bed is totally free of yellow slough. Surrounding tissue – pink, epithelialized tissue (edema – 3+)	3.4 cm x 2.8 cm x 0.1 cm	Yellow slough in 45–50% of wound bed (diffused).	<ul style="list-style-type: none"> • Wound Cleanser with Zinc and Vitamin B₁₆ • Active <i>Leptospermum</i> Honey Alginate Dressing • Non-adherent, padded dressing

WEEK 1



WEEK 6



WEEK 7



WEEK 8



WEEK 9



References:

- Hellewell TB, Major DA, Foresman PA, Rodeheaver GT. A cytotoxicity evaluation of antimicrobial and microbial wound cleansers. *Wounds: A Compendium of Clinical Research and Practice*. 1997;9(1):1–20.
- Lansdown ABG, Mirastschijski U, Stubbs N, Scanlon E, Agren S. Zinc in wound healing: theoretical, experimental, and clinical aspects. *Wound Repair and Regeneration*. 2007;15:2–16.
- Lusby PE, Coombes A, Wilkenson JM. Honey: a potent agent for wound healing? *Journal of Wound, Ostomy, Continence Nursing*. 2002;29(6):295–300.