

MANAGING PYODERMA GANGRENOSUM WITH ACTIVE *LEPTOSPERMUM* HONEY

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INTRODUCTION

Pyoderma Gangrenosum (PG) is an uncommon ulcerative condition with systemic diseases. Diagnosis is by exclusion. Ulcers heal very slowly. In a process called pathergy, new ulcerations may occur after trauma or injury, therefore sharp debridement is contraindicated.¹ Treatment consists of a combination of systemic and local care. The most consistent effective results are with corticosteroids and cyclosporin. Wound care should manage exudate, protect from trauma, maintain a moist wound environment and control pain. Non-adhesive dressings are preferred to decrease pain.

This patient suffers from Myelodysplastic Syndrome (MDS) a disorder in which the bone marrow does not produce enough healthy blood cells. Symptoms of MDS are related to low blood counts and are commonly treated with supportive care that includes blood transfusions and erythropoietic-stimulating agents.

The use of Dakin's solution denatures protein which loosens slough and allows for easier removal. It is used to cleanse, debride, disinfect and control odor. Dakin's should be a short term treatment.

Active *Leptospermum* Honey* (ALH) strong osmotic action has demonstrated the ability to promote autolysis by pulling fluid from surrounding tissues thus adding moisture to the wound. It's production of hydrogen peroxide may also provide broad spectrum antibacterial effect and facilitate autolysis by activating matrix metalloproteinases.²

PURPOSE

To demonstrate the use of ALH for the treatment of challenging PG and ease of administration.

METHODOLOGY

The patient is a 69 year old male who never missed a day's work despite the diagnosis of MDS. He was admitted to our rural hospital two weeks after injuring his right leg while chopping wood. His condition deteriorated after surgical debridement was performed on what was thought to be abscess. He was transferred to a large metropolitan hospital and was diagnosed with a severe case of PG. He was initially treated with high doses of steroids and antibiotics, which stopped the progression of the disease but did not ease the pain. The wound involved his entire lower leg and was covered with yellow slough and eschar. Daily home visits were started by our home health agency. MD orders were to keep the area dry. Dakin's soaks were used to keep the area hydrated and decrease bioburden. ALH was ordered due to its antimicrobial and debriding properties and ease of use for the patient and his family. ALH was impregnated into Vaseline gauze and compression wraps were applied. Shortly after the ALH was started, heavy rains washed out his lane and the bridge to his home and home health nurses were unable to visit. The family assumed responsibility for wound care with his son, who has a learning disability, being his primary care giver.

RESULTS

After 6 months of treatment with ALH the wound was fully epithelialized and the pain associated with PG was greatly decreased.

CONCLUSION

A cooperative effort with hospital, home care, dermatologist, oncologist and family and the use of ALH resulted in full resolution for a very complicated case.

4/20/14

Home Health visits initiated. Wound on right lower leg was circumferential, measuring 22.8cm x 25cm x 2.0cm. Tissue was a dry eschar, yellow slough and very painful. Orders were to keep wound dry. Dakin's soaked gauze and compression wraps were applied. A call to a local dermatologist was made. He agreed with treatment and added a steroid ointment to peri-wound. Daily visits were started.



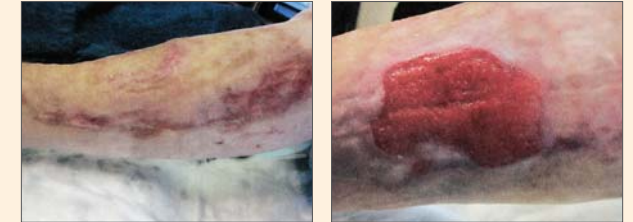
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Flood waters have washed out the bridge to patients home and home health is no longer able to visit. Family drives through fields to reach the clinic. There has been concern with the family providing wound care. The home has less than ideal conditions. Patients wife is physically disabled and the son has a learning disability. The son was instructed on the wound care with ALH. The ALH was easy to use and there was no fear of misusing the product. They were advised to boil the water when cleansing the wound. Return visits revealed no problem with wound care.



9/24/14

The lateral wound closed. There had been no change in wound care. Patient blood count remained stable.



5/13/14

The dermatologist approved autolytic debridement with ALH because of its ease of use and lack of side effects. We applied the ALH Gel to vaseline gauze, then covered with absorbent gauze and compression wraps to control edema.



07/24/14

Patient visits were weekly, then every other week and alternate visits with the dermatologists. His medication was reviewed each visit. He would sometimes have his own variations on his medication. His blood work is monitored weekly by the oncologist for his MSD.



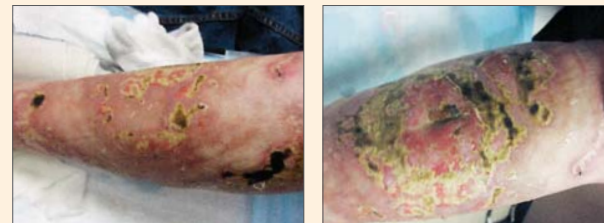
10/8/14

Wounds continue to close with no complications.



5/29/14

Wound was 50% debrided. Patient reported a decrease in pain with the ALH.



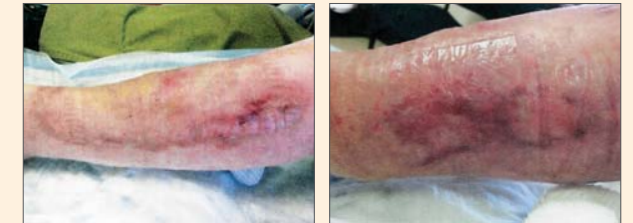
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Wound continued to epithelialize and patient reported pain was greatly reduced.



11/19/14

Wound closed. Patient was instructed to keep skin well moisturized. He was discharged from the wound clinic to be followed closely by his family doctor and dermatologist.



*MEDHONEY® Active Leptospermum Honey Dressings, Derma Sciences, Inc., Princeton, NJ

References: 1. Bhat RA. Pyoderma gangrenosum: An update. Indian Dermatology Online Journal. 2012;3(1):7-13. 2.Molan PC. Re-introducing honey in the management of wounds and ulcers—theory and practice. Ostomy Wound Manage. 2002;48:28-40. Derma Sciences provided an educational grant to support this research. The information may include a use that has not been approved or cleared by the Food and Drug Administration. This information is not being presented on behalf of Derma Sciences.