Graft vs. Host Disease: An Innovative Approach Using Silver Contact Dressing* To Manage Grade IV Skin Lesions

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Purpose/ Rational:

Graft vs. Host Disease (GVHD) is one of the medical challenges facing patients who undergo bone marrow or stem cell transplants. The most common symptom of "acute" GVHD is a maculopapular rash, plaques and/or desquamation which may cause itching or pain. This usually occurs near the phase of white blood cell engraftment. It may be difficult to clinically differentiate from drug toxicity. A skin biopsy is usually taken to confirm the diagnosis. The early stages may be confined to the ears, neck, shoulders, palms of the hands and soles of the feet. As the disease progresses, the rash may become confluent and involve the entire body.

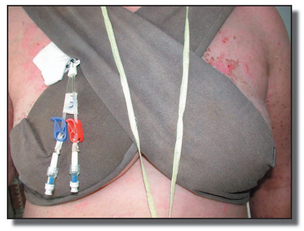
Lichenoid or schleradermatous changes are characteristic of "chronic" GVHD. In severe cases, bullous lesions (epidermal necrolysis) occur and are life threatening.

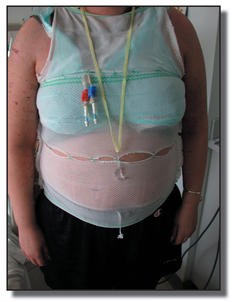
The goal of topical skin care in this population includes:

- Prevention of infection
- Promote a physiologic wound environment
- Decrease pain and promote patient comfort

Clinical Problem:

23 year old female presented with recurrent acute myelogenous leukemia (AML) and recently underwent her second allogenic stem cell transplant. She was admitted to University of Maryland Medical Center for Grade IV (GVHD) of her skin. This patient was in extreme pain, very anxious, agitated and would not allow anyone to touch her. High doses of narcotics were administered. Multiple open bullae were noted on her face, back neck and chest as well as erythema multiforme.





Clinical Approach:

A holistic team approach to care was utilized for this patient which included extensive pain management using Dilaudid PCA, MS Contin, and Neurontin. Pain score (0-10) **10**.

Initially wound care included:

- Green burn sheet
- Cleanse affected areas with saline and gauze
- Aquaphor® (thick coat) BID

This plan proved not acceptable due to pain with application.

The WOC Nurses were consulted to develop a plan of care which comprised of the following:

- Gently cleanse open bullae with warm sterile water.
- Vest of silver contact dressing roll* was created by patient's mom. Mom sewed pieces of the dressing together to form a vest so the WOC Nurses could place over patient's back, chest, and neck open bulae.
- Vest was worn for 3 day intervals and moistened with warm sterile water. Pt.could not tolerate any clothing on her skin. The silver contact dressing* vest was secured with stretch netting sewn into a vest shape by patient's mom.

Outcomes:

With utilizing the silver contact dressing* vest:

- Within **24** hours, the patient's pain score (0-10) decreased to **6-8**. Decreased agitation also occurred.
- The open bullae improved dramatically without infection due to decreasing the bioburden.
- Frequency of dressing changes decreased to every **3 days**.
- Reepithelialization of open bullae lesions was enhanced.
- Within **11** days, the silver contact dressing* vest was discontinued. Pain score (0-10) **0** resting and **2** with movement.

Conclusion:

This innovative plan of care using silver contact dressing* vest substantially increased reepithelialization of GVHD open bullae and drastically decreased pain. It improved the patient's quality of life. Both the patient and family were very appreciative of this treatment plan.

"IT MADE THE PATIENT FEEL BETTER ABOUT HERSELF AND HER SKIN LOOKED BEAUTIFUL"

References:

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* Silverlon Contact Dressing • Silverlon™, Argentum Medical ,LLC., Willowbrook, Illinois 60527