Optimizing the wound bed by removing devitalized tissue and using methylene blue and gentian violet (MBGV) antibacterial foam dressings: A Case Series

By Rosemary Hill BSN CWOCN CETN (C)

INTRODUCTION
Removing necrotic tissue is essential for proper wound bed preparation, making debridement a priority intervention in the management of acute and chronic wounds. Maintaining moisture balance and healthy peri-wound skin is also necessary for wound healing. Selecting a dressing that mitigates patient-centered concerns such as pain and exudate, may further optimize the patient-clinician collaboration. The purpose of this case series is to evaluate the impact of a methylene blue and gentian violet (MBGV) antibacterial foam dressing* on the devitalized tissue and moisture balance on three chronic and three acute wounds.

METHOD
All wounds – surgical excisions, a neuropathic foot ulcer, abdominal and two pressure injuries – were managed with the MBGV dressing*. The dressing was changed every 2-3 days initially, and reduced to bi-weekly dressing change as exudate became more moderate. For the abdominal wound, the dressing was used to remove devitalized tissue prior to negative pressure wound therapy (NPWT). Additional therapies (e.g. pressure redistribution, compression) were used when indicated to address the underlying cause.

FINDINGS
Five of the six wounds were reduced in size.

- Photographic evidence showed the removal of devitalized tissue in the wound beds within days after treatment with MBGV*.
- All six cases showed an increase of granulation tissue.
- Peri-wound maceration was resolved in the 2 cases where it was initially present (cases 1 & 6).
- In case #1, the 92-yr-old with squamous cell carcinoma was unable to tolerate NPWT. Switching to MBGV* not only efficiently removed the devitalized tissue but also improved pain management and the quality of her life.
- The dressing was able to manage high and moderate levels of exudate and reduce number of dressing changes as wound progressed.
- Noteworthy is the considerable wound bed improvement seen in patients despite their advanced age (in at least four of the six cases).

CONCLUSION
Results from this case series – debridement and optimizing the moisture balance – indicate that the MBGV dressing* is a suitable choice for acute and chronic wounds in this case series.

REFERENCES

CASE 1. Wide excision of squamous cell carcinoma with a soft tissue defect

History: 92-yr-old female with squamous cell carcinoma. Past history includes hypertension.

Wound characteristics and prior treatment: Patient had an initial wide excision and deep resection to her right lower leg; Negative Pressure Wound Therapy (NPWT) applied; significant pain reported and no longer able to tolerate that modality. Thus MBGV* was initiated.

CASE 2. Subtotal colectomy with end ileostomy

History: 23-yr-old male presented to the emergency room with fulminant ulcerative colitis. His post-operative recovery was complicated by pneumonia and a midline wound infection.

CASE 3. Neuropathic wound on the left foot with partial amputation (Limb salvage results)

History: 92-yr-old male, paraplegic for 11 years — secondary to meningitis, with pressure injuries present in both heels: the left considerably larger and deeper than the right.

Wound characteristics and prior treatment: Full thickness and pronging to the bone, povidone iodine-impregnated gauze, and absorptive dressing previous to the wound protocol.

CASE 4. Pressure injuries in a paraplegic

History: 92-yr-old male, paraplegic for 11 years — secondary to meningitis, with pressure injuries present in both heels: the left considerably larger and deeper than the right.

CASE 5. Pressure injury – heel

History: female with a left hip arthroplasty, and past medical history of peripheral vascular disease, congestive heart failure, hypertension, dyslipidemia, hypothyroidism, and chronic back pain secondary to spinal stenosis. During her recovery she sustained a severe pressure ulcer to her right heel.

Wound characteristics and prior treatment: Cadexomer iodine every 2 days.

CASE 6. Excision of squamous cell carcinoma

History: 92-yr-old with squamous cell carcinoma, past history of transient ischemic attack and hypertension. Currently taking aspirin, atorvastatin, and perindopril.

Wound characteristics and prior treatment: Wound initially treated with negative pressure wound therapy which was discontinued due to pain. A nanocrystalline silver dressing covered with an absorbent pad was used.

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Presented to the emergency room with signs and symptoms of infection. MBGV* started with systemic antimicrobials and offloading.

Wound characteristics and prior treatment: Cadexomer iodine every 2 days.

CASE 4.

CASE 5.

CASE 6.