Troublesome Persistent Eschar? Consider a hydrophilic wound dressing to assist autolytic debridement: A case series of 6 different wound etiologies

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Aim

The presence of necrotic tissue in the wound bed impedes wound healing by prolonging the inflammatory stage, delaying the proliferative reparative stage, and increasing the risk of infection.[1] Autolytic debridement is a safe, non-invasive way to remove devitalized tissue by utilizing the body's white blood cells and enzymes to dissolve necrotic tissue; however, it may be slower than other methods of debridement. Once establishing suitable vascular support for wound healing, the case series was an effort to establish if a hydrophilic wound dressing(HWD) could assist autolytic debridement by creating a moist wound environment.

Method

This case series involves a variety of wound etiologies including the following: large crush injury (45 years), surgical dehiscence of an orthopedic surgical repair right ankle (61 years), surgical dehiscence from a mastectomy (87 years), neuropathic ulcer dorsal aspect of foot (77), large burn (84 years), large hematoma (84 years),). In five cases the wound bed was comprised of 100% black eschar, and one case of 100% yellow slough. A "nickel" layer thick of a hydrophilic wound dressing was applied to the eschar/slough and a suitable moisture retentive dressing was applied to cover the wound area. The dressings were changed q48-72 hours. The wound sizes varied with the smallest at 1.8x1.6cm and the largest at 33x23cm. It is noted that suitable vascular support for wound.

Results

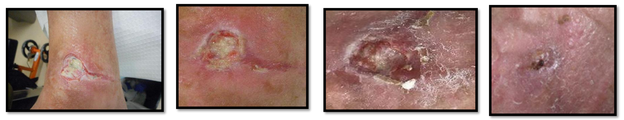
In four of the cases the hydrophilic wound dressing completely removed the necrotic tissue while the remaining cases softened the eschar allowing enhanced conservative sharp wound debridement. All cases proceeded to 100% granulation tissue with closure.

Case #1

History: 46 year old Crush Injury to Right thigh and leg. Hydrophilic wound dressing (HWD) applied, then conservative sharp wound debridement.

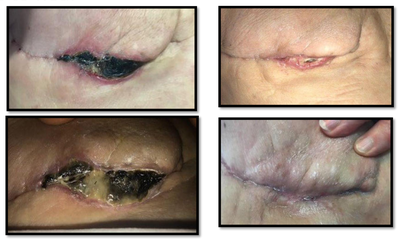
Case #2

History: 61 year old - Surgical repair right ankle, 2.5 weeks of q2—3 days of application of HWD



Case #3

History: 87yo Female osteo, hypotension, R breast CA Mastectomy Sx incision Eschar 5.5cm x 2.2cm HWD & Foam 5 ½ weeks to heal



Case #4

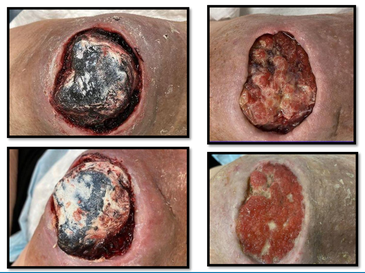
History: 77 year old male, DM2, HTN, CAD, PVD, CVA, CRF, insulin, vasodilator, oral hypoglycemic, hemodialysis Right BKA stump with eschar. HWD & foam drsg from Oct 20-Dec 1

Case #5

History: 84 year old Burn 9.5cm x 4.5cm 3 weeks with HWD 1 ½ weeks with alt product for full closure

Case #6

History: 84 year old (On Xarelto – blood thinner) Fall right knee hematoma



Conclusion

Implication/Application: In certain instances, instrumental debridement may be contraindicated or health care providers do not have the skill in their scope of practice. Wound care clinicians should explore the option of a hydrophilic wound dressing to assist with autolytic debridement.

References

1. Sibbald, R. G., Elliott, J. M., Persaud-Jaimangal, R., Goodman, L. S., Armstrong, D. G., Harley, C., Coelho, S., Xi, N., Evans, R., Mayer, D., Zhao, X. S., Heil, J., Kotru, B., Delmore, B., LeBlanc, K., Ayello, E. A., Smart, H., Tariq, G., Alavi, A., & Somayaji, R. (2021). **Wound Bed Preparation 2021**. Advances in Skin & Wound Care, 34(4), 183–195. https://doi.org/10.1097/01.asw.0000733724.87630.d6

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