Impact of a microcurrent generating device on wounds with Complex Etiology

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BACKGROUND

The success of wound healing outcomes depend on wound etiology, chronicity, presence of pre-existing co-morbidities, and importantly, method of management. Many long-term problems arise from complex diagnoses and unexpected circumstances, including instances such as an implanted nerve stimulator becoming infected and wounds not healing due to aggressive cancer treatments. These patients face unforeseen circumstances that further drain their ability to heal already complicated wound healing situations. Management of the local wound condition, as well as addressing systemic conditions supports efforts in restoring an optimal wound environment. Not all wounds are suitable candidates for standard of care wound treatment approaches, and in the case of complex wounds, a more rigorous multi-modality approach must be taken. Recent evidence-based treatments, including that of a microcurrent-generating dressing (MCD) (a), has shown improved clinical outcomes and quality of life, and improved healing on both a cellular (1) and clinical (2-4) level.

METHODS

A case series was performed to assess the effects of the microcurrent generating device (MCD) in four patients presenting with unhealing complex wounds. Patients belonged a long-term care facility and presented with significant co-morbidities. Wound etiologies included two ulcerations and two surgical wounds, all impactive in nature. The device was applied as a primary contact layer or in concert with Negative Pressure Wound Therapy (NPWT), as needed. Three of the four cases utilized MCD and NPWT at a point in the treatment plan when indicated. One of the four cases used the MCD as the wound contact layer and an appropriate secondary dressing. Patients were monitored on their healing progress.

RESULTS

The complete cases presented in this series highlight the daunting challenge of wound management in patients with significantly compromised health status, numerous co-morbidities, and history of delayed and poor healing. Case #1 showed improved healing with the MCD + NPWT + surgical intervention, play a vital role in the wound care clinic and compromised, high-risk patient population with numerous co-morbidities. Case #2 demonstrated improved healing with MCD and delayed and poor healing. Case #1 showed improved healing with the MCD + NPWT on a cellulitis related wound, despite various diagnoses and unexpected circumstances, including instances such as an implanted nerve stimulator becoming infected and wounds not healing due to aggressive cancer treatments. These patients face unforeseen circumstances that further drain their ability to heal already complicated wound healing situations. Management of the local wound condition, as well as addressing systemic conditions supports efforts in restoring an optimal wound environment.

CONCLUSION

The success of wound healing outcomes depend on wound etiology, chronicity, presence of pre-existing co-morbidities, and importantly, method of management. Many long-term problems arise from complex diagnoses and unexpected circumstances, including instances such as an implanted nerve stimulator becoming infected and wounds not healing due to aggressive cancer treatments. These patients face unforeseen circumstances that further drain their ability to heal already complicated wound healing situations. Management of the local wound condition, as well as addressing systemic conditions supports efforts in restoring an optimal wound environment. Not all wounds are suitable candidates for standard of care wound treatment approaches, and in the case of complex wounds, a more rigorous multi-modality approach must be taken. Recent evidence-based treatments, including that of a microcurrent-generating dressing (MCD) (a), has shown improved clinical outcomes and quality of life, and improved healing on both a cellular (1) and clinical (2-4) level.

REFERENCES

(4) Campbell P, The success of wound healing outcomes depend on wound etiology, chronicity, presence of pre-existing co-morbidities, and importantly, method of management. Many long-term problems arise from complex diagnoses and unexpected circumstances. These patients face unforeseen circumstances that further drain their ability to heal already complicated wound healing situations. Management of the local wound condition, as well as addressing systemic conditions supports efforts in restoring an optimal wound environment. Not all wounds are suitable candidates for standard of care wound treatment approaches, and in the case of complex wounds, a more rigorous multi-modality approach must be taken. Recent evidence-based treatments, including that of a microcurrent-generating dressing (MCD) (a), has shown improved clinical outcomes and quality of life, and improved healing on both a cellular (1) and clinical (2-4) level.

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