CASE SERIES: THE TREATMENT OF CHRONIC PRESSURE ULCERS WITH A HUMAN KERATIN MATRIX

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Background

More than 2.5 million people in the United States develop pressure injuries annually. Approximately 60,000 patients die as a direct result of pressure ulcers. The annual cost of to manage pressure injuries among Medicare beneficiaries alone is estimated to be $22 billion. Moreover, more than 17,000 lawsuits related to pressure ulcers are filed annually, second only to claims of wrongful death.

Novel and effective therapies that drive down wound healing time are essential parts of the toolkit of clinicians when standard-of-care is unable to resolve hard-to- heal chronic pressure injuries.

METHODS

We performed an observational case series assessment on pressure ulcers in the long-term care setting (nursing home). Each patient was observed to have multiple co-morbidities, poor wound healing, and failure to heal under standard-of-care (SOC) under the care of certified advanced practice wound care specialists. These patients received consideration of alternative therapies to facilitate healing.

Three patients were treated with ProgenaMatrix®, a novel and unique human keratin matrix (HKM) product. ProgenaMatrix® acts on wounds that are stalled in the inflammatory phase by activating suppressed keratinocytes, thus causing epithelialization via cellular migration and upregulation of basement membrane protein. Moreover, this keratin biomaterial promotes the creation of anti-inflammatory M2 macrophages and improves phagocytosis.

Patient demographics, past medical and surgical history, and anatomical pathology were articulated. Evaluation of wound closure progress was monitored via data collected from EHR database. Measurement of wound progress was further corroborated via digital photography, and/or near-infrared spectroscopy imaging.

CASES

CASE 1: 95-YEAR-OLD MALE
Type 2 Diabetes Mellitus, GERD
Pressure Wound of the Left Heel
Wound Age: 31 weeks
Wound Measurements: 1.7cm² x 1cm² x 0.1cm³
Prior Treatment Protocol: Standard of Care
Date Progenamatrix Started: 5/25/2023

CASE 2: 66-YEAR-OLD MALE
Stage 4 Pressure Injury of the Right Ischium
Wound Age: 15 weeks
Wound Measurements: 1cm² x 4cm² x 0.5cm²
Prior Treatment Protocol: Standard of Care
Date Progenamatrix Started: 5/10/2023

CASE 3: 83-YEAR-OLD FEMALE
Stage 4 Pressure Injury of Thoracic Spine
Wound Age: 20 weeks
Wound Measurements: 1.5cm² x 2cm² x 1.1cm³
Prior Treatment Protocol: Standard of Care
Date Progenamatrix Started: 5/5/2023

RESULTS

Wound PAR among the cohort of three patients, who all had full-thickness pressure injuries (stage 3 or stage 4), was 100%, 91.2%, and 91.6% respectively, over a 5- to 9-week period. This represents a successful outcome for patients who present with multiple comorbidities, failed SOC, and wounds whose healing has stalled.

CONCLUSION

All patients experienced accelerated healing and significant wound area reduction with ProgenaMatrix®, despite significant co-morbidities, and a history of poor wound healing.

Each marginal day of stalled wound-healing in pressure injuries not only results in an increased risk of morbidity and mortality, but also increased financial costs and medico-legal risks.

These results suggest that ProgenaMatrix®, may be an effective and cost-effective modality in the treatment of chronic pressure ulcers which have failed Standard of Care.

References


Weekly applications? Number of applications?