The geko™ Wound Therapy Device: A Case Study of a Radiation Induced Lower Leg Ulcer

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Aim

To evaluate the geko™ wound therapy device in the treatment of a non-healing lower leg ulcer secondary to radiation therapy.

Procedure/Method

- A 90-year-old lady who has been co-followed in Hyperbaric and Wound management clinics for a non-healing wound of the left lower leg.
- A biopsy was taken in 2019 which indicated a squamous cell carcinoma.
- Treatment modalities over the past have included best practices, surgery, radiation therapy and a failed skin graft.[1]
- In 2020 she was referred to Hyperbaric Oxygen clinic.
- The wound was located on the lateral aspect of the left lower gaiter area and measured 14cm x 8 cm with exposed tendon.
- She was unable to tolerate many therapies due to contact dermatitis.
- In 2022 it was approved to implement the geko™ wound therapy device as an adjunctive therapy.
- The geko™ wound therapy device is placed over the fibular head to stimulate the common peroneal nerve which activates the calf and foot muscle pumps.[2]
- This improves venous return, reduces edema, and increases bloodflow, velocity and pulsatility, and microcirculation to the wound and peri-wound.[3]

Findings/Results

- The wound responded positively to the geko™ wound therapy device following an 8 week course of treatment.
- There was improved granulation tissue, the tendon was no longer visible, and the wound size reduced to 11 cm x 6cm.
- The wound continued to show progress using the geko™ wound therapy device.

Implications/Applications

- The outcome and potential application of the geko™ wound therapy device as an adjunctive therapy in conjunction with Hyperbaric Oxygen therapy demonstrated that early intervention with the geko™ wound therapy device offered this patient improved healing outcomes in treating her radiation-induced wounds.

References

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