Treatment of Severe (Stage III and IV) Chronic Pressure Ulcers Using Pulsed Radio Frequency Energy in a Quadriplegic Patient

Eugene G. Porreca, MD, FRCS, and Gina M. Giordano-Jablon, CNA, LPN
Progressive Hospital, Las Vegas, Nevada
Reprinted Abstract, full study available through ePlasty, Open Journal of Plastic Surgery or your local sales representative

OBJECTIVE
To report an adjuvant treatment to basic wound care of stage III and IV pressure ulcers in a patient with quadriplegia.

METHODS
Pulsed radio frequency energy was used as an adjunct to basic wound care of 3 large, long-standing (6 years) stage III and IV pressure ulcers that were unresponsive to conventional therapy in a 59-year-old man with quadriplegia.

RESULTS
The ulcers (on right foot, left heel, and sacrum) markedly decreased in size (16.7, 28.5, and 13.1mm² per day, respectively). The ulcer on the right foot healed within 4 weeks, the left heel ulcer reduced in size by 95% at 7 months, and the large sacral ulcer healed to closure in 11 months.

CONCLUSION
Pulsed radio frequency energy treatment with basic wound care, if administered early in the course of pressure ulcer therapy, might avoid the lengthy hospitalizations and repeated surgical procedures necessary for treatment of uncontrolled ulcers, reducing the overall cost of treatment and improving the quality of life for chronically ill or injured patients.

Figure 1. Large sacral ulcer before treatment with pulsed radio frequency energy.

Figure 2. Sacral ulcer following 7 months of treatment with pulsed radio frequency energy with 88% reduction in surface area.