

ABSTRACT

The aim of this study was to determine whether a skin-specific bioengineered regenerating agent (RGTA) heparin sulphate mimetic (CACIPLIQ20) improves chronic wound healing. The design of this article is a prospective within subject study. The setting was an urban hospital. Patients were 16 African-American individuals (mean age 42 years) with 22 wounds (mean duration 2.5 years) because of either pressure, diabetic, vascular or burnwounds. Two participants each were lost to follow-up or removed because of poor compliance, resulting in 18 wounds analysed.

Sterile gauze was soaked with CACIPLIQ20 saline solution, placed on the wound for 5 min, then removed twice weekly for 4 weeks. Wounds were otherwise treated according to the standard of care. Twenty-two percent of wounds fully healed during the treatment period. Wounds showed a 15.2–18.1% decrease in wound size as measured by the vision engineering research group (VERG) digital wound measurement system and total PUSH scores, respectively, at 4 weeks ($P = 0.014$ and $P = 0.003$). At 8 weeks there was an 18–26% reduction in wound size ($P = 0.04$) in the remaining patients. Wound-related pain measured by the visual analogue pain scale and the wound pain scale declined 60% ($P = 0.024$) and 70% ($P = 0.001$), respectively. Patient and clinician satisfaction remained positive throughout the treatment period. It is concluded that treatment with CACIPLIQ20 significantly improved wound related pain and may facilitate wound healing. Patient and clinician satisfaction remained high throughout the trial.

Key words: Glycosaminoglycans • Heparan sulphate • Wound healing • Wound pain