

# Use Of ReGeneraTing Agents (RGTA) In Hand Surgery: A 7-Year Journey

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## INTRODUCTION

ReGeneraTing Agents (RGTA) are a family of polymers bioengineered to stabilise heparin-binding growth factors by mimicking HeparanSulphate (HS) thereby protecting them and promoting tissue repair and regeneration. In an injury, the ExtraCellularMatrix – ECM is exposed due to the destruction of HS by the actions of proteases and glycanases which break them down and also act on cytokines and growth factors to prevent adequate repair. Therefore applying an RGTA would help by it binding to the structural proteins and reconstructing the ECM scaffold. Growth factors will also bind to RGTA and resume position and organization resembling that of non-injured tissue. Hence RGTA show they induce a regeneration process by restoring -the proper cellular micro-environment. More recently a RGTA named CACIPLIQ20 was adapted to skin lesions and has shown efficacy in various trials of non-healing leg ulcers.

## MATERIALS AND METHODS

We applied the Caciqliq20 to a total of 17 patients over a seven-year period, some of whom had multiple dressings. 14 were upper limb cases. The same technique was used and all had biweekly application.

## RESULTS

All wounds, even chronic ones eventually healed. Completely avascular areas developed neovascularization and went on to heal. Tissue was replaced in like manner improving functional outcome, especially over the joints. Scarring was reduced to a minimum.

## CONCLUSION

RGTA are promising alternative especially in cases where there is scarring or a poor outcome anticipated and where vascularity is deficient.