

GENE EXPRESSION ANALYSIS IN SCARS TREATED WITH SILICONE CREAM: A PILOT STUDY

Background

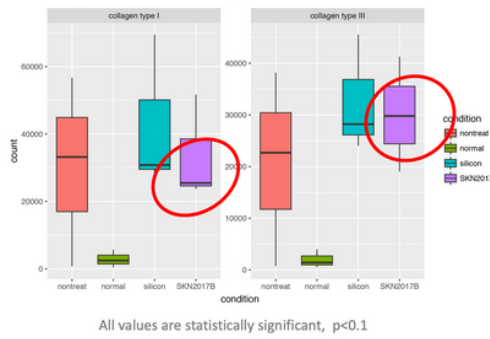
Skinuva® Scar is a silicone cream matrix that incorporates novel selective Growth Factors, Hyaluronic Acid, Vitamin C, Aloe Vera, and Centella Asiatica. In contrast to fetal scar tissue, adult scar tissue presents with visible scarring. Topical silicone creams have been shown to improve the appearance of scars. This case series compares the genetic expression of post-surgical scar tissues that received topical scar treatment with silicone cream, Skinuva® Scar, or no treatment. **In this study, we evaluated gene expression in scar tissues, to see if there were more favorable genes expressed in scars treated with Skinuva.**



Study Design/Materials and Methods

Women who had undergone an abdominoplasty were included in this investigation and randomly assigned to treat part of the scar with topical silicone, another part with Skinuva® Scar, and to leave a third part untreated. After four weeks, punch biopsies were taken and the RNA sequenced. Healthy abdominal skin was biopsied as baseline data. Genes of interest were identified and median values were calculated for the samples.

Collagen Type I to Type III ratio



- Best scars heal with the lowest Collagen Type I/III ratio (i.e. fetal scars)
- Collagen Type I/III ratio
 - Untreated = 1.5
 - Silicone = 1.13
 - SKN2017B = 0.867
- Decreased Collagen Type I/III ratio seen with Skinuva (SKN2017B) and lowest Collagen Type I count!

Results

Skinuva® Scar-treated scars demonstrated the lowest collagen type I to collagen type III ratio. Other key genes of interest in wound healing showed the lowest (favorable) expression of fibroblast activation protein alpha, lysyl oxidase and cartilage oligomeric matrix protein; the highest (favorable) expression of fibronectin type III domain containing 1 and matrix metalloproteinase 9 were found in scars treated with Skinuva® Scar.

Conclusion

The skin punch biopsies of 3 patients showed that their scars treated with Skinuva® had gene expression which was **more favorable to the best healing scar when compared to silicone cream and no treatment.**



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<https://skinuva.com/pages/clinical-studies>