The effect of chemexfoliation and anti-aging regiments on fibroblast expression of IGF-1: A pilot Study

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ABSTRACT

Objective
Recently, IGF-1 secreted by fibroblasts has been shown to prevent development of squamous cell carcinoma of the sun-damaged skin. The purpose of this study is to see if skin rejuvenation regiments can increase the levels of IGF-1 secreted and thus prevent the development of squamous cell skin cancers.

Methods
3 subjects were selected. Silicone cast and photos of right and left pre and post auricular sites were obtained. Each site underwent either a deep chemexfoliation, medium depth chemexfoliation or one of two novel antioxidant cream regiments. Sites were followed for 3 months. Follow up silicone casts were obtained for surface profilometry. Biopsies of the treated regions and a control site were also obtained and sent for histological evaluations for IGF-1 levels.

Results
2 out of 3 subjects showed improvement of skin wrinkles using the antioxidant regiments. Also, 2 out of the 3 subjects showed increase in IGF-1 levels using a strong antioxidant regimen. The sites treated with chemexfoliation showed decrease in IGF-1 levels when compared to control.

Conclusion
These results suggest that antioxidant creams used could protect the skin against squamous cell carcinoma while chemexfoliated skin can potentially be at a higher risk of developing squamous cell carcinoma.

REFERENCES