Suppression of TGF-β1 expression in keloids after cryosurgery

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Abstract:

Transforming growth factor- beta1 has been implicated in the pathogenesis of keloids and was reported to be the target of several therapeutic modalities. However, the effect of cryosurgery on its expression in keloid tissue has not been yet investigated. In this cohort study, 26 consecutive keloid patients were treated with cryosurgery for 2-6 sessions. Keloids were biopsied before starting cryosurgery and after two treatment sessions for the immunohistochemical evaluation of the expression of Transforming growth factor- beta1. The average volume reduction, after two treatment sessions (in 22 patients completed the study) was 68.77±15.82%. Dermal over expression of Transforming growth factor- beta1 was demonstrated in all keloid specimens before treatment. Following therapy, significant reduction of that expression was detected in all keloid specimens (P=0.016). In addition to attesting the clinical value of cryosurgery, our findings indicate that cryosurgery effectively suppressed Transforming growth factor- beta1 expression contributing to keloid regression.

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