Background: Striae distensae have notoriously been difficult to treat due to their extensive involvement of non-facial skin. In recent years, microneedling has been proven useful in the treatment of a wide variety of dermatologic conditions. The lack of thermal injury during treatment makes microneedling a viable treatment for treatment of darker skin tones and non-facial regions due to the reduced risk of post-inflammatory hyperpigmentation.

Objective: We describe the clinical results of microneedling in a series of 25 individuals with striae distensae.

Materials & Methods: Twenty-five consecutive patients (SPT I-V) with striae distensae involving the trunk and extremities were treated using a microneedling device. Treatments were delivered at monthly intervals by the same operator using a motorized microneedling device with 2.5mm to 3mm needle depths. No additional treatments (topical or intralesional) were applied. Representative clinical photographs were obtained at baseline, prior to each treatment, and 1, 3, 6, and 12 months after treatment. Two assessors blinded to treatment protocol rated clinical improvement of striae on a 5-point scale (0= no change, 1= 1-25% improvement, 2= 26-50% improvement, 3=51-75% improvement, 4= 76-100% improvement). Side effects were monitored and tabulated.

Results: Patients received 1 to 3 consecutive monthly treatments. All striae improved at least 50% after an average of 1.8 treatments and 60% of patients demonstrated over 75% clinical improvement. No significant differences were observed in clinical responses of striae in patients with different skin phototypes. Striae in thinner skin areas (eg, breasts) required fewer treatments than thicker skinned regions (eg, hips/thighs). Side effects were limited to transient erythema. No infections nor dyspigmentation were observed.

Conclusion: The clinical results obtained in this study support the safe and effective treatment of striae distensae with microneedling in light and dark skin tones.