



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

## **THE TOXIC EDGE - A NOVEL THERMO-MECHANICAL TRANSDERMAL DELIVERY SYSTEM, SONOPHORESIS AND BOTULINUM TOXIN - A MULTIMODAL APPROACH FOR REFRACTORY ERYTHEMA AND FLUSHING OF ROSACEA.**

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**Introduction:** Rosacea is a common, chronic facial skin disease that affects the quality of life. Treatment of facial erythema with intradermal botulinum toxin injection has previously been reported.

The primary objective of the study was the safety and efficacy of thermal decomposition of the stratum corneum using a novel non-laser thermomechanical system (Tixel, Novoxel, Israel) to increase skin permeability for Botulinum toxin in the treatment of facial flushing of rosacea.

**Methods:** A retrospective review of 16 patients aged 23 to 45 years with Fitzpatrick Skin Types II to IV and facial erythematotelangiectatic rosacea treated by Tixel followed by topical application of 100 units of abobotulinumtoxin. A standardized high-definition digital camera photographed the patients at baseline and 1, 3, and 6 months after the last treatment. Objective and subjective assessments of the patients were done via Mexameter, the Clinicians Erythema Assessment (CEA) and Patients self-assessment (PSA) scores and the dermatology life quality index (DLQI) validated instrument.

**Results:** The average Mexameter, CEA, and PSA scores at 1, 3, and 6 months were significantly improved compared with baseline (all had a p-value < .001). DLQI scores significantly improved with an average score of 18.6 at baseline at 6 months after treatment (P<0.001). Self-rated patient satisfaction was high. There were no motor function side-effects or drooping.

**Conclusion:** Thermal breakage of the stratum corneum using the device to increase skin permeability for botulinum toxin type A in the treatment of facial flushing of rosacea seems both effective and safe.

