

Long-Term Clinical Effect of Needle-Free Electronic Pneumatic Hyaluronic Acid Injection Treatment for Facial Atrophic Acne Scars

Chikako Kaminaka^{1,2}, Naoya Mikita¹, Kayo Kunimoto¹, Mana Kurimoto¹,
Mariko Sakata¹, Koji Uede³, Masatoshi Jinnin¹, Yuki Yamamoto^{1,2}

¹Department of Dermatology, Wakayama Medical University, Wakayama, Japan

²Department of Cosmetic Dermatology and Photomedicine,
Wakayama Medical University, Wakayama, Japan

³Department of Dermatology, Uede Dermatology Clinic, Wakayama, Japan

Abstract

Objective: This retrospective case series was designed to compare the long-term safety and efficacy of needle-free electronic pneumatic hyaluronic acid injection (EPI-HA) treatment for atrophic acne scars (ASs).

Background: Few clinical studies have examined the long-term utility of EPI-HA for ASs in people with darker skin.

Materials and Methods: Nineteen Japanese subjects with moderate to severe facial atrophic acne scars underwent EPI-HA treatment on a randomized side of their face. Three treatment sessions were carried out at one-month intervals, and the subjects were followed-up for at least six months after the final treatment.

Results: At least six months after the final treatment, 57.9% of treated sides met the criteria for success. Rolling type scars were much improved compared with boxcar types and icepick types. Satisfaction (or better) was reported by almost 80% of subjects, which was similar to the physicians' assessment. 3-D in vivo imaging analysis detected significant difference in scar reductions at six months after the final treatment ($p < 0.05$).

Conclusions: EPI-HA treatment long-term significantly improved rolling facial atrophic acne scars in our Japanese subjects, and with minimal side effects.