

## **Tightening Facial Pores and Decreasing Oiliness with Monopolar RF**

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Enlarged facial pores are one of the common skin signs of photoaging that patients seek treatment for. Treatment modalities available often operate based on a mode of action of inducing dermal remodeling and offer limited outcome with short-term improvement. Our long-term observation obtained using non-ablative monopolar radiofrequency (NMRF) for non-ablative facial skin tightening recognizes its benefit in minimizing pore size and decreasing the oiliness of the treated areas, of which is most likely due to its dual mechanisms of action on inducing dermal remodeling to tighten the opening of the pores and volumetric heating of the sebaceous glands to suppress its sebum excretion.

We recently finished a study which objectively evaluate long-term efficacy and safety of a nonablative monopolar radiofrequency for pore tightening in Asians. Seventeen patients with enlarged pores received two treatments with a monopolar radiofrequency at 4-week intervals. Patients were evaluated using objective (measurements of pore volume and skin texture using three-dimensional photography and skin elasticity applying cutometer) and subjective (clinical evaluation by two blinded dermatologists and patients' self-evaluation) assessments at baseline and 1 month after the first treatment and 1, 3, and 6 months after the second treatment. Adverse effects were also recorded during each visit.

The result showed that the mean of pore volume significantly reduced 24% from baseline at one month after the first treatment. The pore volume continued to decrease to 34% and 38% from baseline at 1 and 6 months following the last (2<sup>nd</sup>) treatment, respectively. Sebum excretion significantly decreased 39% and 36% from baseline at 3, and 6 months after the last treatment, respectively. Skin texture and elasticity also significantly improved from baseline following the treatments. Objective assessments of the pore appearance corresponded to the clinical evaluation. No cases of dyspigmentation, textural alteration, or scarring were documented.

In summary, nonablative monopolar radiofrequency appears to be effective and safe for pore size reduction with therapeutic outcomes persisting up to 6 months after the completion of two treatment sessions.