



Inflammaging and biostimulation: a clinical case report using high-intensity focused ultrasound and Poly-L-Lactic Acid

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ABSTRACT

Introduction: Facial aging is a complex process resulting from the interaction between intrinsic and extrinsic factors. Inflammaging contributes to collagen degradation and impairment of the extracellular matrix, accelerating skin sagging and aging. Biostimulation, using technologies such as high-intensity focused ultrasound and injectable biostimulators, has been shown to be effective in promoting neocollagenesis and improving skin firmness, presenting itself as a promising option in orofacial harmonization.

Objective: To describe the combined effect of high-intensity focused ultrasound and injectable poly-L-lactic acid biostimulator in the treatment of facial sagging in a patient with complaints of accelerated aging. Simultaneously, the influence of inflammaging on the process is discussed.

Methods: A clinical case report is presented. The patient underwent two high-intensity focused ultrasound sessions 30 days apart, followed by three poly-L-lactic acid application sessions 6 weeks apart. Before the procedure, a complete medical history and photographic study were performed. The poly-L-lactic acid protocol followed the recommendations for dilution and technique to maximize efficacy and minimize adverse effects.

Clinical Case Description: A 59-year-old female patient complained of facial sagging and accelerated aging. She had no relevant history or previous orofacial harmonization procedures. Treatment began with two high-intensity focused ultrasound sessions. After 30 days, the injectable biostimulator protocol began: poly-L-lactic acid. Dilution was performed 24 hours before the procedure to ensure product hydration, according to protocol. Applications were made at multiple facial points (malar, mandibular, and perioral regions) and cervical points. The treatment was well tolerated, with

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no significant adverse effects. A gradual improvement in skin laxity and texture was observed, confirmed by clinical and photographic evaluation, with high patient satisfaction.

Conclusion: The combined use of high-intensity focused ultrasound and injectable poly-L-lactic acid biostimulator proved effective in improving facial flaccidity in patients with accelerated aging associated with inflammaging. Controlling chronic inflammation through a holistic approach and promoting tissue regeneration are fundamental to orofacial harmonization. Individualized protocols and clinical follow-up are recommended to optimize results.
