



Multilayer reconstruction of the periorbital region with hyaluronic acid, PDLA, and a polyvitamin complex: a clinical case report

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ARTICLE INFO

Received 07 July 2026

Accepted 08 August 2026

Keywords:

periorbital rejuvenation
tear trough deformity
hyaluronic acid
poly-D,L-lactic acid (pdlla)
skin biostimulation
dark circles

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DOI: 10.62741/ahrj.v3iSuppl.3.251

ABSTRACT

Introduction: The periorbital region is one of the first facial areas to exhibit signs of aging due to its thin skin, high muscular activity, and complex anatomy. Aging in this region involves bone resorption, atrophy of fat compartments, ligamentous laxity, and qualitative skin changes, which clinically manifest as deep tear trough deformities, hyperpigmentation, skin laxity, and loss of radiance. Current approaches to periorbital rejuvenation should be three-dimensional and multilayered, simultaneously addressing structural support, dermal quality, and skin hydration.

Objective: To present a clinical case of periorbital reconstruction using hyaluronic acid, poly-D,L-lactic acid, and a polyvitamin complex for the treatment of deep and pigmented dark circles.

Methods: A combined treatment protocol was performed at different anatomical levels. A total of 0.5 mL of Art Filler Eyes® (Fillmed) was administered per side for deep tear trough reconstruction using a 22G, 50 mm cannula. Subsequently, 1 mL of Juvelook® was injected per side in the periorbital region, using a needle in the eyelids and a 25G, 50 mm cannula in the lateral lower eyelid, upper eyelid, and temporal areas. Finally, 1 mL of NCTF® (Fillmed) was administered per side superficially at the dermoepidermal junction.

Clinical Case Description: A 35-year-old female patient presented with complaints of deep pigmented dark circles and a fatigued appearance of the periocular region. Clinical examination revealed deepening of the tear trough deformity, loss of midfacial support, infraorbital hyperpigmentation, skin thinning, and mild laxity. Following treatment, a significant improvement in tear trough depth, enhanced uniformity of the infraorbital region, improved skin quality, and

Contributions: Conceptualization: VS; Data curation: VS; Formal Analysis: AS and AR; Funding acquisition: VS; Investigation: VS and CL; Methodology: VS and IAC; Project administration: VS; Resources: Not applicable; Software: Not applicable; Supervision: JL; Validation: AS; Visualization: AR; Writing original draft– VS and IAC; Writing – review: JL and AS.

Please cite this article as: Santos V, Castro IA, Raybolt A, Losacco J, Silveira A, Lopes C. Multilayer reconstruction of the periorbital region with hyaluronic acid, PDLA, and a polyvitamin complex: a clinical case report. *Athena Health & Research Journal*. 2026; 3(Suppl. 3). doi: 10.62741/ahrj.v3iSuppl.3.251

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overall rejuvenation of the periorbital area were observed.

Conclusion: Periorbital reconstruction requires an integrated approach based on a thorough understanding of the anatomical changes associated with aging. The combination of hyaluronic acid, poly-D,L-lactic acid, and a polyvitamin complex proved to be a safe and effective strategy for the correction of deep and pigmented dark circles, promoting overall rejuvenation of the periorbital region.
