e-ISSN 3050-8460
Journal of Dermatology Research

ATHENAEUM SCIENTIFIC PUBLISHERS

Research Article

The R-Technique: A Multilayer Lateral-Facial Volumisation Method Using Hyaluronic Acid Fillers: A Prospective Analysis of 100 Cases

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Citation: Wong V, et al. The R-Technique: A Multilayer Lateral-Facial Volumisation Method Using Hyaluronic Acid Fillers: A Prospective Analysis of 100 Cases. J Dermatol Res. 2026;7(1):1-6.

https://doi.org/10.46889/JDR.2026.7112

Received Date: 25-01-2026

Accepted Date: 12-02-2026

Published Date: 20-02-2026

Abstract

Background: Facial rejuvenation traditionally focuses on anterior mid-face volumisation; however, age-related descent and deflation of the lateral face contribute substantially to contour loss. The R-Technique, developed by Wong, emphasises a multilayered, ligament-focused approach to lateral-face restoration.

Objectives: This study evaluates the safety, efficacy and patient satisfaction following the R-Technique across 100 consecutive cases at a tertiary aesthetic medicine centre.

Methods: A prospective observational study was conducted on adult patients receiving Hyaluronic Acid (HA) fillers via the R-Technique. Standardised photographs, validated satisfaction scales and complication monitoring were utilised. Three viscosity grades of HA were placed strategically along an R-shaped treatment zone, extending from the temporal crest through the zygomatic arch and descending toward the mandibular ramus.

Results: Ninety-seven percent of patients demonstrated clinically appreciable lifting and contour enhancement at twelve weeks. The mean Global Aesthetic Improvement Scale (GAIS) score was 1.34 ± 0.52, consistent with "much improved." Complications were minor and self-limiting, including transient oedema (22%) and ecchymosis (18%). No cases of vascular occlusion, visual disturbance or long-term adverse events occurred. Patient satisfaction at twelve weeks was 94%.

Conclusion: The R-Technique provides predictable, natural-appearing lateral facial rejuvenation with a strong safety profile. Its emphasis on anatomical support, multilayer deposition and lateral vectoring appears effective in counteracting age-related volume and ligamentous decline.

Keywords: Hyaluronic Acid; Global Aesthetic Improvement Scale; R-Technique

Introduction

Contemporary non-surgical facial rejuvenation increasingly recognises that volume loss and structural change in discrete facial compartments and ligamentous attachments contribute materially to the clinical appearance of aging. The concept of discrete facial fat compartments has been well described and has influenced modern strategies for targeted volumisation; compartment-specific augmentation can restore contour and support more predictably than diffuse filling alone [1]. In parallel, the description of the retaining ligamentous apparatus of the face, including the zygomatic and mandibular ligaments, provides a structural map that explains tethering and zones of adherence which are critical when designing an injection strategy that aims to produce lift through deep structural placement rather than only superficial filling [2]. An integrated understanding of skeletal remodeling, ligamentous support and fat compartment behavior forms the anatomical rationale for lateral face approaches that place support in the temple, zygoma and lateral cheek to generate a lifting vector and restore youthful lateral contour [3,4]. These anatomical and biomechanical insights inform the R-Technique, which proposes a curvilinear injection pathway following lateral structural lines to support the malar and temporal soft tissues and to re-establish lateral facial projection while minimising direct overfilling

of central facial subunits where undesired projection or the "overdone" look can occur. The following paragraphs summarise the key anatomical literature and safety considerations that underpin a protocolised, reproducible R-Technique approach.

Anatomical Rationale

The facial soft tissues are organised in layered compartments separated by septa and bound to the skeleton at discrete retaining ligaments. The description of subcutaneous fat compartments clarified that aging manifests not as uniform deflation, but preferential volume loss in specific compartments, leading to contour changes that can be selectively treated with strategically placed fillers [1]. The retaining ligaments, anatomically and histologically characterised, serve as tethering points and create predictable zones of adherence; interruption or augmentation across these zones yields differential soft-tissue movement and contour change, which is why targeted deep augmentation adjacent to these ligaments can create a lifting effect without extensive superficial filling [2,5]. Moreover, age-related craniofacial bone remodeling alters the osseous scaffold, thereby modifying soft-tissue support and necessitating approaches that consider the "inside-out" nature of facial aging when planning injectable interventions [4]. Taken together, these data support a lateral structural approach to volumisation where deep, ligament-adjacent filler placement in the temple, zygomatic arch and lateral cheek can restore projection and ligamentous support, recontour the malar eminence and indirectly reduce jowl prominence by re-establishing lateral suspension vectors.

Safety Considerations and Evidence Base for Fillers

Hyaluronic acid fillers remain the most widely used volumising agents due to their reversibility with hyaluronidase and favourable short-term safety profile. That said, adverse events range from expected transient reactions such as swelling and bruising to rare but serious events including vascular occlusion and vision-threatening embolisation. Contemporary reviews recommend a combination of anatomical knowledge, aspiration where appropriate, slow bolus and microcannula techniques, real-time ultrasound where available, immediate access to hyaluronidase and standardised consent and emergency protocols as cornerstone strategies for prevention and management of complications [6,7]. In addition, the literature emphasises the importance of product selection choosing gel rheology and cohesivity matched to the targeted plane and meticulous patient selection to reduce risks while maximising aesthetic outcomes. These safety principles have been directly incorporated into the proposed R-Technique protocol below.

Description of R-Technique

The R-Technique is a structured lateral facial volumisation approach based on five predefined anatomical points, designated R0 through R4, which collectively define the borders of an "R-shaped" treatment zone along the lateral face. These points are positioned using reproducible surface landmarks and correspond to specific tissue planes and structural support zones, allowing controlled, layer-specific restoration of volume and contour while respecting underlying anatomy.

Points R0, R1 and R2 are situated within the temporal and zygomatic regions and are designed to address volume loss across multiple tissue planes of the upper lateral face. R0 is located approximately 1.5 cm posterior to the orbital rim along the temporal crest and corresponds to the interfascial plane of the temple. Volumisation at this point is intended to restore foundational temporal support and improve concavity at a deep structural level. R1 is positioned on the temporal crest approximately 1 cm superior to the orbital rim and 1 cm lateral to it, overlying the temporal fossa. This point is associated with deep supraperiosteal support of the temple, contributing to upper lateral facial projection and skeletal reinforcement. R2 is located at the medial third of the zygoma and facilitates subcutaneous volumisation of the temporal region, allowing refinement of superficial contour and smooth transition between the temple and lateral cheek.

Point R3 is located on the lateral cheek and is defined by the intersection of a vertical line drawn inferiorly from the lateral canthus and a horizontal line extending laterally from the alar base. This point serves as a designated access site to the lateral face. From this location, volumisation is directed toward the junction of the zygomatic cutaneous ligament and the masseteric cutaneous ligament, a critical area of structural convergence. Support at this junction is intended to reinforce lateral ligamentous suspension, contributing to improved midface support and lateral cheek contour. Point R4 is positioned at the angle of the mandible and represents the inferior anchor of the R-shaped treatment border. Depending on individual anatomical requirements, this point may be utilised to enhance posterior jawline definition through deep structural support or to restore volume within the lateral temporal cheek fat compartment via superficial augmentation, contributing to improved lower lateral facial balance.

Together, the five R-points define a continuous curvilinear pathway for lateral facial volumisation. By addressing volume loss across interfascial, supraperiosteal and subcutaneous planes and prioritising support at key ligamentous junctions, the R-Technique aims to restore temporal fullness, re-establish malar projection and improve global facial harmony through an upward and posterior vector of support, without excessive anterior facial augmentation.

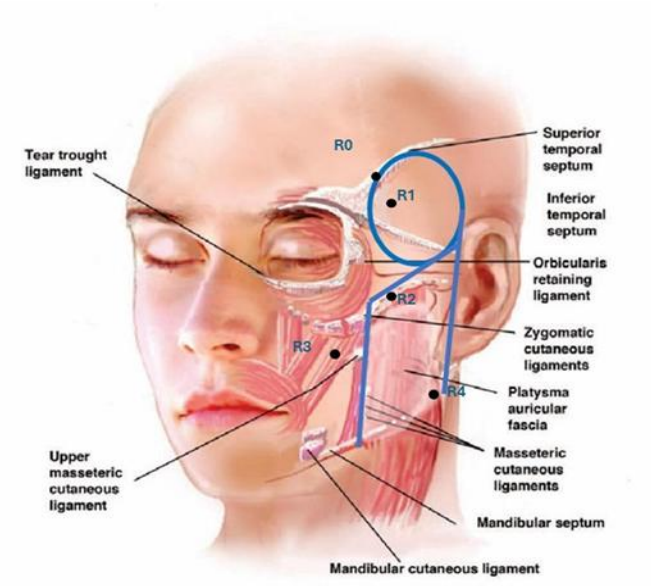

Figure 1: R-Technique anatomical point mapping (R0-R4). Diagram showing the five predefined lateral facial landmarks (R0-R4) forming the R-shaped treatment border. Points correspond to layer-specific volumisation of the temple, lateral cheek and mandibular angle, with structural support focused at key ligamentous junctions.

Methodology

This prospective observational study was conducted at Omniere Aesthetics in London between January 2024 and May 2025. Patients aged 25-72 undergoing full-face or partial-face aesthetic planning were offered the R-Technique when deemed clinically appropriate based on anatomical assessment.

Exclusion criteria included pregnancy, lactation, active infection, autoimmune disease, bleeding disorders and previous permanent filler in the treatment zone. All treatments were performed by a single experienced injector trained in the R-Technique. Standardised photographs were captured at baseline, immediately post-treatment, at four weeks and twelve weeks. The primary outcome was aesthetic improvement using the Global Aesthetic Improvement Scale (GAIS). Secondary outcomes included patient satisfaction, complication rate and longevity of aesthetic benefit.

The R-Technique involved placement of HA fillers of three viscosity grades corresponding to structural, volumising and contour-refining purposes. A high-elastic-modulus product was deposited deeply at the temporal crest, zygomatic arch, jawline and junction of the masseteric cutaneous ligament and the zygomatic cutaneous ligament for foundational support. Medium-viscosity fillers were used for soft-tissue volume restoration at the lateral temporal cheek and/or middle cheek fat compartments. Low-viscosity agents were applied superficially to refine contours. Injection methods included both cannula and needle, depending on tissue plane and rheology. Total product volume ranged from 2.2 to 6.4 mL per session. Patients were evaluated for immediate and delayed complications and provided with standard aftercare advice. Satisfaction was measured via a five-point Likert scale.

Results

Demographics

The cohort comprised 100 patients (88 female, 12 male) with a mean age of 44.6 years (range: 25-72). Fitzpatrick skin types I to V were represented. Fifty-seven patients had no previous facial filler history.

Aesthetic Outcomes

At twelve weeks, 97 patients demonstrated clear aesthetic improvement on GAIS. The mean GAIS score was 1.34 ± 0.52 (lower scores = more improvement), reflecting strong clinician-assessed benefit. Temporal hollowing improved in 92% of cases, lateral cheek contour in 94% and jawline angle definition in 81%. Photographic analysis confirmed a consistent widening of the upper and mid-face in accordance with youthful morphology.

Patient Satisfaction

Ninety-four percent of patients reported being "satisfied" or "very satisfied" at twelve weeks. Patients frequently cited subtlety, natural appearance and avoidance of a "filled" look as primary positive attributes. Satisfaction was highest among patients presenting with early to moderate volume loss.

Complications

Adverse events were minor and self-resolving. Transient periorbital or temporal oedema occurred in 22% of cases, typically resolving within 72 hours. Ecchymosis was observed in 18%. Mild asymmetry occurred in six cases, all corrected during follow-up. No vascular occlusion, skin necrosis, nodules, late inflammatory reactions or visual complications were recorded.

Case Series Overview

The 100-case series demonstrated consistent reproducibility of the R-Technique across both naïve and previously treated faces. Younger patients (25-35) primarily sought lateral contour enhancement, whereas older patients (50+) benefitted from structural support, temporal revolumisation and indirect mid-face lift. Prior filler history did not significantly affect outcome scores.

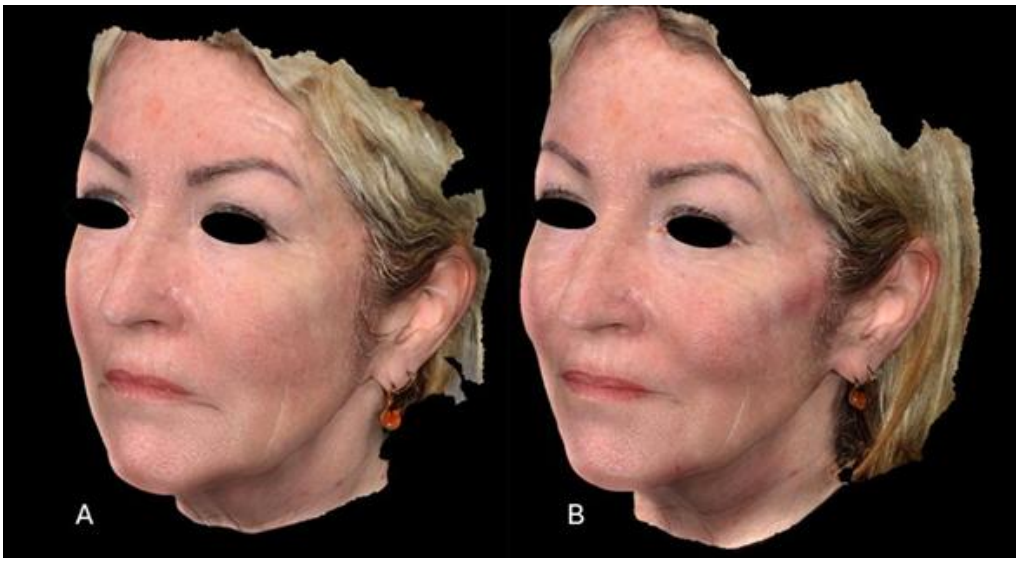

Figure 2: Clinical outcome following treatment with the R-Technique. Representative before-and-after images of one patient treated with the R-Technique. A: baseline lateral facial contour prior to treatment and B: the post-treatment appearance demonstrating improved lateral facial projection and contour harmony.

Discussion

This study provides one of the most comprehensive evaluations of the R-Technique to date. The lateral face is increasingly recognised as a critical element in facial ageing, as deflation in this region destabilises ligamentous support and produces central sagging. By directly reinforcing the lateral vector, the R-Technique counters these biomechanical changes more effectively than anterior volumisation alone and without the risk of unnatural forward projection. The multilayer, multiproduct nature of the technique appears central to its success. High-G' fillers provide skeletal support at deep periosteal points, while medium-viscosity products restore depleted fat compartments and low-viscosity fillers refine surface contour. The avoidance of single-plane, single-product injection reduces the risk of oedema, heaviness and contour irregularity. These findings align with current anatomical literature emphasising the functional significance of retaining ligaments, fat-compartment boundaries and vector-based lifting approaches.

Anatomical literature supports targeted lateral augmentation as a rational approach to restore youthful contour and to re-establish supporting vectors that are lost with age. The seminal description of facial fat compartments provides the conceptual framework for compartment-specific augmentation, while foundational descriptions of the retaining ligaments explain why deep ligament-adjacent support can produce lift disproportionate to the volume injected superficially [1,2]. Reviews of facial aging emphasise the interplay between skeletal remodeling, ligamentous attenuation and fat compartment changes and they encourage interventions that respect layered anatomy and that prioritise structural support were needed rather than indiscriminate volumisation [3,4]. Filler safety literature highlights the imperative of operator training, vascular anatomy awareness, product selection and access to hyaluronidase and emergency protocols; these safety imperatives have been integrated into the procedural checklist and follow-up schedule of the proposed protocol [6-10].

Limitations

The absence of randomized comparison with alternative strategies (for example central cheek bolus techniques or surgical options) means that the resulting evidence from a single-arm series will be limited in causal inference; however, a carefully conducted, well-reported prospective series with 100 patients can still provide meaningful information on effect size, durability and safety that can inform future controlled studies.

Conclusion

The R-Technique represents a structured and anatomically informed approach to lateral facial rejuvenation that offers predictable, natural-appearing outcomes with a favourable safety profile. By prioritising restoration of lateral structural support through defined anatomical landmarks and multilayer volumisation, the technique addresses key age-related changes involving fat compartment deflation, ligamentous attenuation and loss of skeletal projection. The use of sequential, plane-specific augmentation along lateral facial vectors enables effective recontouring and indirect lifting while minimising the risk of excessive anterior projection or unnatural fullness. When performed by appropriately trained clinicians with a thorough understanding of facial anatomy, the R-Technique appears to provide a reliable method for achieving balanced facial rejuvenation that aligns with contemporary principles of structure-based aesthetic medicine.

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding Statement

This research did not receive any specific grant from funding agencies in the public, commercial or non-profit sectors.

Acknowledgement

None.

Data Availability Statement

Not applicable.

Ethical Statement

The project did not meet the definition of human subject research under the purview of the IRB according to federal regulations and therefore, was exempt.

Informed Consent Statement

Informed consent was taken for this study.

Authors' Contributions

All authors contributed equally to this paper.

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