International Journal of Research in Dermatology
Chhabra C et al. Int J Res Dermatol. 2026 Nov;12(6):704-713
https://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20263752

Review Article

SB-NASHA: a review on scientific differentiation and skin quality enhancement

Chiranjiv Chhabra[1], Chaithra Shenoy[2], Anirban Ghosh[3], Meghna Mour[4], Dyotona Sen[5], Sameer Jadhwar[5]*

[1]Skin Alive Clinics, Delhi, India
[2]CUTIS Academy of Cutaneous Sciences, Bangalore, India
[3]Anirvana Clinic, Kolkata, India
[4]SKUCCII Supercliniq, Mumbai, India
[5]Department of Medical Affairs, Galderma India

Received: 09 July 2026
Revised: 04 August 2026
Accepted: 21 September 2026

***Correspondence:**
Dr. Sameer Jadhwar,
E-mail: Sameer.jadhwar@galderma.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Skin aging is a multifactorial process driven by intrinsic biological changes and extrinsic environmental factors, leading to reduced hydration, collagen degradation, loss of elasticity, and the development of fine lines and wrinkles. Hyaluronic acid (HA), due to its superior hydrating, viscoelastic, and biocompatible properties, plays a central role in minimally invasive skin rejuvenation strategies. HA-based skin booster non-animal stabilized hyaluronic acid (SB-NASHA) 20 mg Skinboosters™ represent a novel therapeutic approach that improves skin quality through intradermal microinjections, restoring hydration, stimulating fibroblast activity, and promoting extracellular matrix remodelling. A structured literature review was conducted using PubMed, Scopus, Web of Science, and Google Scholar to identify studies published between 2007 and 2025 evaluating the mechanisms, clinical efficacy, and safety of SB-NASHA 20 mg hyaluronic acid skinboosters for skin rejuvenation. Eligible studies included clinical trials and observational studies reporting outcomes related to skin hydration, elasticity, texture, or patient satisfaction. Relevant data were qualitatively synthesized. Additionally, their adjunctive use with aesthetic procedures such as botulinum toxin injections or laser resurfacing has shown synergistic effects. With a favourable safety profile and minimal downtime, SB-NASHA provides healthcare professionals with an effective, evidence-based option for managing early and advanced signs of skin aging. This review offers consolidated, practice-oriented insights and expert panel perspectives to support the optimal clinical use of SB-NASHA 20 mg in aesthetic dermatology.

Keywords: Aging, ECM, Fillers, NASHA

INTRODUCTION

The biological foundations of skin aging

One of the earliest measurable indicators of skin aging is the alteration in its mechanical properties, primarily due to the declining number and function of fibroblasts within the dermis (Figure 1). This reduction compromises collagen synthesis, particularly type I and III, and diminishes skin elasticity, hydration, and overall structural integrity. These intrinsic changes manifest as fine lines, loss of firmness, and thinning of the dermis, which can be further exacerbated by extrinsic aging factors—most notably, UV exposure.[1,2]

A key component of the extracellular matrix (ECM), hyaluronic acid (HA), plays a vital role in maintaining dermal hydration and elasticity. Owing to its highly hydrophilic nature, HA has the capacity to bind up to 1,000 times its weight in water, supporting moisture retention, volume, and turgor in the skin.[3] A retrospective chart review reported that Trans-epidermal water loss (TEWL) scores on the face and neck remained within healthy normal values throughout all visits and the treatment with small particle HA fillers significantly improved hydration levels in the face, neck, and hands.[4]

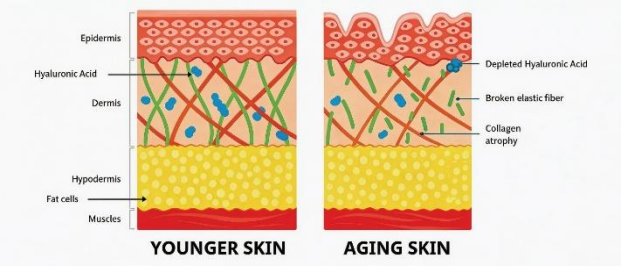


Figure 1: Changes in the skin with aging.

Evolving aesthetic goals and minimally invasive solutions

The demand for aesthetic procedures that are minimally invasive yet deliver natural and sustained results has seen a marked increase in recent years. Modern patients prioritize skin quality over structural alteration and favor treatments with minimal recovery time and low complication rates.[2] Among these options, HA-based dermal fillers have established themselves over the past two decades as a gold-standard intervention for skin rejuvenation.[5]

Although traditionally used for volume restoration, the progressive age-related decline in endogenous HA contributes significantly to visible skin aging. Mid-dermal injection of stabilized, non-animal origin HA, particularly formulations manufactured using NASHA® technology (Galderma, Uppsala, Sweden), has emerged as a validated approach to counteract dermal aging.[6] A systematic review and meta-analysis evaluated the effectiveness of hyaluronic acid dermal fillers in midface volume augmentation and showed favorable outcomes. Clinical evidence demonstrates their efficacy in correcting wrinkles, nasolabial folds, and facial volume loss, with significant improvements in elasticity, skin texture, and aesthetic outcomes. Topical and adjunctive HA formulations further enhance hydration and recovery, complementing filler procedures and extending the longevity of results. Overall, HA-based therapies are safe, well tolerated, and provide consistent anti-aging benefits across diverse patient populations.[7,8] Most of the included studies indicated notable improvements in volume restoration, leading to better facial aesthetics and greater patient satisfaction. Reported adverse effects, such as bruising and swelling, aligned with the well-documented anticipated injection related reactions profile of dermal filler treatments.[9]

As aesthetic trends evolve toward subtlety and skin enhancement, skin booster non-animal stabilized hyaluronic acid (SB-NASHA) have gained widespread traction. While Restylane® SB-NASHA formulations are primarily intended to support skin hydrobalance, dermal structural integrity, and elasticity, expert panel observations further suggest that their clinical use may also be associated with enhanced skin smoothness, improved hydration and radiance, and perceived refinement of pores, pigmentation irregularities, fine lines, and superficial textural changes.[10]

Scientific underpinnings associated with the SB-NASHA 20 mg

The term "Skinbooster" was first popularized in clinical use with SB-NASHA 20 mg, marking a pivotal shift in how HA fillers were perceived. This product redefined HA as not only a volumizer but as a dermal conditioning agent, supporting extracellular matrix (ECM) structure and function.[11] SB-NASHA utilize NASHA® technology to deliver small, precisely dosed micro-injections of HA into the mid-dermis using a micro-puncture technique. This method enhances ECM quality while maintaining a natural look, particularly in areas such as the face, neck, hands, and décolletage.[6] SB-NASHA are injected into the reticular dermis or subdermis using the SmartClick™ system, which ensures precise 10 µl delivery per audible click for consistent, controlled dosing .[12,13]

HA is present in the dermal layer of the skin and is known for its ability to maintain and absorb moisture, as well as to stimulate and regulate the secretion of growth factors in connective tissues of the skin.[1] Importantly, HA used in SB-NASHA differs in rheological properties from traditional fillers—it is engineered to offer hydration without altering facial contours. With the growing aesthetic market offering a range of HA-based injectables varying in particle size, cross-linking chemistry (often using BDDE - 1,4-butanediol diglycidyl ether), and additive compositions, product differentiation becomes critical. SB-NASHA's controlled manufacturing process ensures consistent, predictable results.[10,14]

This review aims to redefine the narrative around SB-NASHA, with a focus on the scientific distinctiveness and clinical advantages of SB-NASHA, an innovation backed by real-world data, unique formulation technology, and patient-reported outcomes.

METHODS

Literature search strategy

A structured literature search was conducted to identify studies evaluating the mechanisms of action, clinical outcomes, and safety profile of Restylane Skinboosters

SB-NASHA 20 mg used for skin rejuvenation. Electronic databases including PubMed, Scopus, Web of Science, and Google Scholar were systematically searched for articles published between 2007 and 2025.

The search strategy incorporated both Medical Subject Headings (MeSH) and free-text terms related to hyaluronic acid–based skin boosters and skin aging. Key search terms included "hyaluronic acid skin boosters," "SB-NASHA," "Restylane Skinboosters," "NASHA technology," "skin rejuvenation," "intradermal hyaluronic acid," "skin hydration," "dermal remodeling," and "skin quality improvement." Boolean operators ("AND" and "OR") were used to refine search combinations and optimize retrieval of relevant literature.

Study selection criteria: Studies were considered eligible if they met the following criteria: which included clinical trials, randomized controlled trials, observational studies, or prospective cohort studies, or investigated SB-NASHA or comparable intradermal hyaluronic acid skinbooster treatments, or reported outcomes related to skin hydration, elasticity, texture, dermal density, wrinkle reduction, or patient satisfaction or was published in English between 2007 and 2025.

Data extraction

Two independent reviewers screened titles and abstracts for relevance, followed by full-text evaluation of potentially eligible articles. For included studies, data were extracted using a standardized template capturing the study design and sample size, patient demographics and treatment indications, injection protocol and treatment intervals, outcome measures (e.g., hydration, elasticity, dermal density, wrinkle scores), duration of follow-up, safety outcomes and reported adverse events and patient-reported outcomes and satisfaction scores.

Any discrepancies during data extraction were resolved through discussion between the reviewers.

Data synthesis

Given the heterogeneity in study designs, treatment protocols, and outcome measures, a qualitative narrative synthesis was performed. Extracted findings were categorized into the following thematic domains namely the mechanisms of action of intradermal Hyaluronic acid, clinical efficacy in improving skin hydration and elasticity, effects on dermal remodeling and extracellular matrix stimulation, safety profile and tolerability and adjunctive use with other aesthetic procedures.

The evidence was interpreted with emphasis on clinical relevance, consistency of findings, and methodological quality of the included studies.

DISCUSSION

SB-NASHA: redefining the therapeutic paradigm

The rise of minimally invasive skin rejuvenation

The evolution of aesthetic dermatology has given rise to a new class of injectables—SB-NASHA that are fundamentally distinct from traditional volumizing fillers. While hyaluronic acid (HA) has long been recognized for its role in restoring facial volume, the concept of Skinboosters introduces a shift towards intrinsic dermal rejuvenation.[15]

SB-NASHA injections are popular aesthetic treatments that are highly sought after because they are minimally invasive and minimal downtime.[10] SB-NASHA when administered intradermally, enhance hydration, elasticity, and dermal architecture (Figure 2).[10,16]

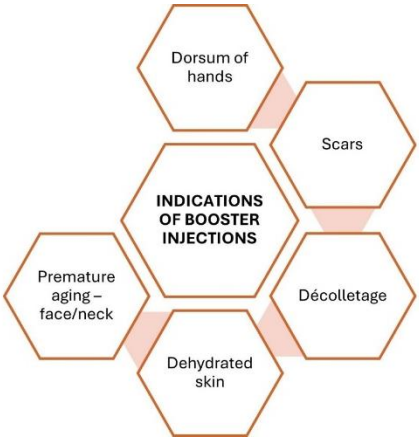


Figure 2: Indications of areas of SB-NASHA injections.

SB-NASHA enhance dermal hydration, tissue volume, and structural support to the extracellular matrix.[15] Additionally, it also improves texture—such as smoothing atrophic acne scars or reducing inflammation-driven surface irregularities.[17] This bioactive stimulation leads to improvements in skin glow, smoothness, and resilience that are both visible and tactile.[16,18]

Clinical effects of SB-NASHA [19–21]

Clinical effects of SB-NASHA included improvement in the texture of the skin (smoother and firmer skin), reduction in the pigmentation and pore size, improvement in the skin surface evenness, reduction in the wrinkles, fine lines, scarring and enhancement in the radiance, intense hydration and instant glow.

SB-NASHA Expert Scientific Consensus

An expert panel consensus recommendation on the clinical use of SB-NASHA[13] (Table 1).

Table 1: Consensus recommendations on treatment differentiating the effect and the area with SB-NASHA.

Consensus recommendations on the areas indicated for treatment with NSBs		Consensus recommendations on the effect of NSBs	
Area	**Consensus**	**Effect**	**Consensus**
Face and cheeks	Yes*	Improves skin elasticity	Yes*
Forehead lines	Yes	Reduces texture/surface roughness	Yes*
Hands	Yes*	Improves skin firmness	Yes*
Upper arms	Yes*	Improves hydration	Yes*
Neck and décolleté	Yes*	Reduces fine wrinkles	Yes*
Perioral lines	Yes*	Reduces skin imperfections	Yes*
Periorbital lines	Yes*		
Skin signs of solar elastosis	Yes*		
Lips	Yes*		
Other: knees, elbows, foot	No		

*Indicates strong consensus with agreement of >85; NSBs: NASHA gel skin boosters.

FROM SURFACE TO STRUCTURE: MECHANISM BEYOND HYDRATION

Mechanism of action

Non-animal stabilized hyaluronic acid (NASHA®) gels are produced using a patented technology that maintains natural HA entanglements while applying a low level of chemical cross-linking. These gels have been widely used and well-documented for soft tissue augmentation for over two decades. SB-NASHA 20 mg and SB-NASHA 12 mg are NASHA formulations created to enhance skin quality gradually through intradermal or subdermal microinjections in very small volumes.[13]

SB-NASHA and its technological superiority: What sets it apart

SB-NASHA 20 mg, shows the high gel strength (G′ 489–553 Pa) and complex modulus (G* up to 571 Pa), making it the most structurally firm and elastic-ideal for improving skin firmness and long-term support. VYCROSS also offers moderate stiffness (G′ ~153–165 Pa), providing both hydration and some lifting effect. In contrast, NAHYCO and CPM display liquid-like properties with lower G′ values (13 Pa and 8–13 Pa, respectively), making them more suitable for hydration and skin radiance rather than structural reinforcement. IBSA HA offers a balance between elasticity and flow, while PDRN, being a polynucleotide-based treatment, works through biological stimulation rather than mechanical properties.[22,23] VYCROSS technology, uses cross-linked hyaluronic acid and provides results lasting up to 9 months. NAHYCO technology, is a thermally stabilized, BDDE-free HA product with effects that typically last around 6 months. SB-NASHA 20 mg, which use NASHA technology, offer long-lasting hydration with results maintained for 9 to 12 months. PDRN-based boosters, and others are DNA-derived biostimulators, and their effects generally persist for 6 to 12 months.[10] (Table 2).

Table 2: Comparative overview of commonly used injectables for skin rejuvenation and their technologies.

Product	Cross-linker / Type	Injection Technique	Treatment Areas	Session Details	Duration of Results	Syringe Volume
SB-NASHA 20 mg	Non-animal stabilized HA	1 cm apart injections using Smart Click System	Face, neck, hands	3 sessions every 4 weeks, 2 follow-ups at 6 months	9–12 months	Not specified
PDRN	PDRN (from salmon DNA)	Microinjections (superficial dermis/subcutis), 2–4 sessions	Face, various areas	2–4 sessions, each 30 days apart	6–12 months	Not specified
Growth Factors (PRP, recombinant GF products, topical/ injectable GF-based boosters)	Proteins / peptides (EGF, PDGF, VEGF, etc.) – no cross-linker	Injection (PRP, mesotherapy), microneedling, combined with energy-based devices (EBDs), or topical with absorption enhancers	Face (rejuvenation, pigmentation), wounds, post-laser skin	Often combined with needling/EBD; sessions vary depending on protocol (no standardised regimen reported)	Effects depend on wound-healing cycle and receptor availability; generally short-term unless combined with stimulation	Not applicable

Continued.

Product	Cross-linker / Type	Injection Technique	Treatment Areas	Session Details	Duration of Results	Syringe Volume
Exosomes (stem-cell derived, keratinocyte-derived, or culture-based exosome products	Extracellular vesicles (miRNA, peptides, growth factors inside) – no cross-linker	Injection (mesotherapy), microneedling, transdermal methods (ultrasound, plasma, lasers)	Face (rejuvenation, pigmentation), scalp (hair loss treatment)	Multiple sessions; frequency depends on product availability and cost (not standardised)	Results promising but variable; dependent on exosome concentration and purity; generally short- to medium-term	Not applicable

*EBDs, Energy-Based Devices; †EGF, Epidermal Growth Factor; ‡GF, Growth Factor; §HA, Hyaluronic Acid; ||miRNA, **Micro-Ribonucleic Acid; ††NAHYCO, NA Hyaluronic acid HYbrid Complex; ‡‡NASHA, Non-Animal Stabilized Hyaluronic Acid; *PDRN, Polydeoxyribonucleotide; †PDGF, Platelet-Derived Growth Factor; ‡PRP, Platelet-Rich Plasma; §VEGF, Vascular Endothelial Growth Factor.

SB-NASHA: Clinical and scientific benefits[24]

A clinical study evaluated the efficacy and safety of facial skin treatment with SB-NASHA 20 mg using two treatment sessions and long-term follow-up. Skin quality parameters including hydration, elasticity, softness, radiance, smoothness, and freshness were rated as improved by a majority of subjects. A total of 27 females with a mean age of 41 years (SD 3.3 years) were enrolled and received the study treatment.

Skin quality parameters including hydration, elasticity, softness, radiance, smoothness, and freshness were rated as improved by a majority of subjects (Figure 3).

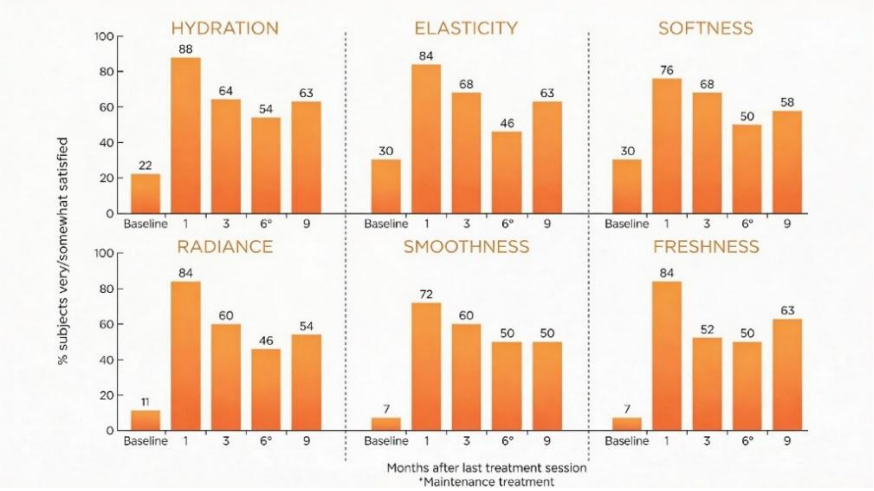


Figure 3: Subject satisfaction with skin quality.

CLINICAL PRACTICE AND PROTOCOLS

Right scientific positioning

SB-NASHA 20 mg is utilized to support restoration of skin hydrobalance, improvement in dermal structural quality, and enhancement of skin elasticity; additionally, expert panel recommendations note further clinically observed benefits, including smoother and firmer skin texture, increased cutaneous radiance and hydration, and perceived reductions in pore visibility, pigmentation irregularities, fine lines, and superficial scarring. A recent classification system categorizes skin into two types: Type A, which includes more mature, thicker skin that may show signs of photoaging and possesses greater tissue coverage (e.g., the cheeks), and Type B, which refers to younger, thinner, and more delicate skin with minimal tissue coverage (e.g., the neck). For Type A skin, SB-NASHA 20 mg is recommended for areas with strong tissue coverage and minimal lifting needs. Treatment success depends on precise assessment and product selection. SB-NASHA effectively targets uneven tone, surface irregularities, reduced elasticity, and dehydration, yielding marked improvements in smoothness, evenness, firmness, and radiance. It can be administered into the reticular dermis, subdermis, or subcutaneous plane, enabling tailored correction of fine lines, photodamage, and aging skin.[2,13]

Product recommendations: SB-NASHA

For Type A skin, characterized by mature, thicker tissue with partial photodamage and substantial tissue coverage, SB-NASHA 20 mg is well suited owing to its 20 mg/ml

stabilized hyaluronic acid formulation (with or without 0.3% lidocaine) based on NASHA® technology, which provides strong tissue coverage with low lifting capacity. It is administered subcutaneously and is appropriate for improving skin quality in the face, neck, hands, décolletage, and upper arms.[2]

Treatment protocol

The new treatment protocol (Figure 4) recommends two, optionally three initial treatments at an interval of four weeks, with the flexibility to extend the interval based on patient preference. Although improvements in skin hydration are evident within the first few days after the first session, repeated treatment is necessary to activate the fibroblasts and promote collagen production. Patient education regarding this delayed but long-lasting effect is pivotal for patient satisfaction. Studies show that SB-NASHA 20 mg can provide results up to 12 months. Following the initial course, maintenance with two sessions every 9–12 months is recommended (Figure 4).[2]

Application and techniques

SB-NASHA 20 mg is applied according to the treatment area and patient needs. In the cheeks, it is used for preventive care in younger patients and to improve skin quality in older patients, most often with a blunt cannula, though sharp needles are also an option. In the perioral region, SB-NASHA 20 mg is selected for preventive treatment as well as for managing wrinkles and loss of elasticity, with either blunt or sharp techniques applied. For the décolletage, it is administered to address reduced elasticity and overall skin quality, using blunt or sharp injections depending on clinical preference. Treatment of the hands is mainly performed in patients over 30 years who present with dryness, thinning tissue, or visible veins and tendons; here, a blunt cannula is preferred for safety and even distribution, while sharp bolus injections are reserved as a secondary approach.[2] For an indication-conforming application, the injection amount, technique points and volumes are recommended in the treatment protocols for the respective treatment area (Table 3).[2]

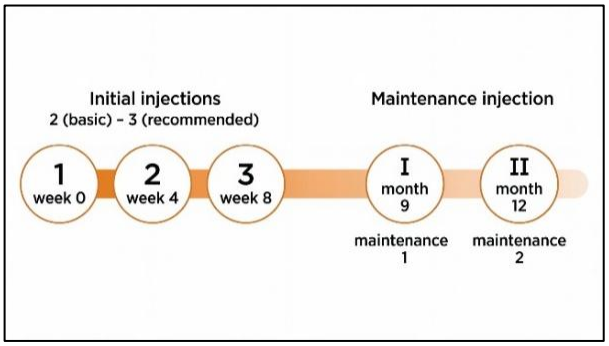


Figure 4: Revised treatment protocol for SB-NASHA.

Evidence of efficacy – clinical outcomes and patient perspectives

A series of clinical studies have evaluated the efficacy and safety of hyaluronic acid (HA) injections for skin rejuvenation and scar treatment (Table 4).

Table 3: Treatment summary by facial area.

Indication Area	Target Group	Indications	Product Selection	Volume per indication	Injection Technique
Cheeks	Patients with aged skin and younger patients	Younger patients: prophylaxis, dry skin, fine lines	SB-NASHA 20 mg	0.5 ml per side	Blunt; sharp
Perioral (Smoker's Lines)	Younger patients (preventive treatment) as well as patients with loss of elasticity	Wrinkles and perioral loss of elasticity	SB-NASHA 20 mg	0.25 ml per side, 0.5 ml total	Blunt; sharp
Décolletage	Mostly patients with aged skin	Loss of elasticity/ decreasing skin quality	SB-NASHA 20 mg (thicker skin)	1-2 ml per side	Blunt; sharp
Hands	Mostly patients above 30 years; seldom younger (25–30 years)	Younger patients (Approx. ≥ 30 years): prophylaxis; dry skin, hands with clearly visible sinews (thin hypodermic tissue, bulging veins and sinews)	SB-NASHA 20 mg for dry, thin skin	0.5 ml per side	Depending on expertise choice: blunt; 2. choice: sharp (bolus technique)

*SB-NASHA, Skin booster-Non Animal Stabilized Hyaluronic Acid

Table 4: Clinical studies on NASHA technology-based HA gels.

Study name	Study design	Sample size and population	Injected areas	Intervention, dose, frequency	Results	Inference
Dierickx et al[19]	Open non-comparative 36-week pilot study	n=12 Caucasian patients with atrophic moderate to severe acne scars (SCAR-S grade ≥3)	Face	20 µl HA gel per injection point, injected into each side of the face at 3 sessions, 4 weeks apart	SCAR-S improvement (W36): 66.7% (n=8) GAIS: Somewhat improved 42%, Much improved 42%, Very much improved 17% 29 Treatment-related AEs: (mild/ moderate), all resolved	Effective and safe
Kim J[25]	Single-center, prospective, in vivo study	n=150 patients with dry skin and oily skin with large pores and acne scars	Face, hand, leg, hip skin	1 cc HA divided into 1000 shots	After 1 month: Roughness (level): 1.34→3.17, Dryness (level): 1.28→3.82 Dermal thickness (hand) (mm): 1.19→1.24 Dermal thickness (face) (mm): 1.03→1.08	Microinjection (0.001 cc) improves skin texture
Kerscher et al[26]	Single-center, prospective, pilot study	n=19 with skin types I–IV and loss of skin elasticity	Face	1 ml HA gel bilateral injections, 3 sessions, 4 weeks apart	W24: Skin elasticity improved (p≤0.001 left cheek, p=0.002 right cheek) Skin roughness decreased (p<0.001)	Improved skin elasticity and surface roughness
Ribe et al[20]	-	n=9 patients with skin phototypes II–IV and photodamaged neck skin	Neck	1 ml HA gel + laser treatment every 2–4 weeks (4 sessions total)	Clinical: Improved fine wrinkles, tightness, texture Histology: Laser-induced effects at 400 µm; inflammation at 1000 µm; HA seen at 1000–1500 µm	Combined HA and laser improved skin appearance and structure
Lee et al[21]	Single-center, prospective study	n=30 patients with wrinkles and skin laxity (aging)	Face	2 ml HA gel injected, 3 sessions, 4 weeks apart	Improved roughness, wrinkles, moisture, brightness, elasticity (p<0.05) Improved moisture, oil, elasticity (p<0.05)	Effective rejuvenation procedure
Reuther et al[27]	Single-centre, prospective, open pilot study	n=20 (19 completed); Caucasian women ≥30 years with loss of skin elasticity (mean age 54 ± 10 years, Fitzpatrick type II–III)	Lower facial cheeks	NASHA gel (SB-NASHA 20 mg 20 mg/ml), ~1 ml per side, micropuncture serial injections, 3 sessions at weeks 0, 4, and 8	Significant improvements in skin firmness, gross elasticity, net elasticity, and viscoelastic recovery at week 24 (16 weeks after last injection). Fatigability decreased. No change in hydration. Mild AEs: transient hematoma, erythema, 1 nodule (all resolved)	Improved skin viscoelasticity; effective, safe, with short- and long-term benefits

Continued.

Study name	Study design	Sample size and population	Injected areas	Intervention, dose, frequency	Results	Inference
Lim Hee et al[28]	Single-centre, prospective, randomized, split-face controlled study	n=10 Korean women (mean age 31.2 years; Fitzpatrick skin types IV–V) with prominent nasojugal groove/dark circles	Nasojugal groove (infraorbital hollow)	SB-NASHA 20 mg (NASHA gel) injected intradermally using a specialized injector, one session	High patient satisfaction; significant volumetric correction and skin tone improvement at 4 weeks; effect maintained up to 8 weeks, partially persisting at 24 weeks; mild transient AEs (redness, swelling, ecchymosis), no serious events	Safe, effective for short-term correction of nasojugal groove; specialized injector allowed precise placement with minimal trauma
Halachmi et al[29]	Case series (prospective, uncontrolled)	n=12 patients (7 men, 5 women; 19–54 years) with moderate–severe acne scars after fractional laser resurfacing	Face (discrete depressed/ice pick acne scars)	SB-NASHA 20 mg (20 mg/ml, low-viscosity HA), microinjected with 10 µl/dose metered injector into superficial dermis; single session	Immediate visual improvement in all patients; well tolerated; only transient pinpoint bleeding reported; high patient satisfaction	Safe, well tolerated, and effective technique for discrete depressed acne scars, providing immediate correction
Man et al[30]	Randomized, double-blind, split-hand comparative study	n=10 female patients with dermal thinning of the dorsal hands	Dorsal hands (interphalangeal spaces)	SB-NASHA 20 mg (NASHA, 1.4 ml), injected subcutaneously, single session	HA was superior in vein clearance (mean diff. 0.95, p=0.004; median diff. 0.9, p=0.008); less tolerated (more discomfort, p = 0.010); patient satisfaction higher with HA but not significant (p = 0.070); AEs: mild pain, tingling, bruising; 1 collagen-related nodule resolved by 6 months	HA effective for hand rejuvenation

*AE, Adverse Events; †GAIS, Global Aesthetic Improvement Scale; ‡HA, Hyaluronic Acid; §NASHA, Non-Animal Stabilized Hyaluronic Acid; ||SCAR-S, Scale for Acne Scar Severity

In a 36-week open-label pilot study, 12 patients with moderate to severe acne scars showed a 66.7% improvement in SCAR-S scores and favorable GAIS ratings following three sessions of HA injections, with all treatment-related adverse events resolving by study end.[19] Kim et al conducted a prospective study in 150 patients with dry, oily, and acne-scarred skin, demonstrating that microinjections of 1 cc HA significantly improved skin roughness, dryness, and dermal thickness within one month.[25] Similarly, Kerscher et al reported significant improvements in facial skin elasticity and surface roughness in 19 patients after three HA injection sessions spaced four weeks apart.[26] In another study, Ribe et al treated 9 patients with photodamaged neck skin using a combination of HA and laser therapy, resulting in improved skin texture and elasticity, with histological evidence of dermal remodelling.[20] Lastly, Lee et al observed significant enhancements in skin moisture, brightness, elasticity, and reduction in fine wrinkles in 30 patients with signs of skin aging following a similar three-session HA injection protocol.[21]

CONCLUSION

SB-NASHA 20 mg has emerged as a clinically validated and scientifically differentiated solution for addressing age- and environment-related skin ageing. Their unique ability to improve hydration, elasticity, and overall skin structure without altering facial contours positions them as an essential component of modern aesthetic practice. Backed by strong clinical evidence, real-world patient satisfaction, and over two decades of global experience, SB-NASHA have redefined the use of hyaluronic acid

injectables—not as volumizers but as dermal conditioning agents. As treatment goals become more personalized and preventive in nature, the role of skin boosters in long-term dermatologic care will continue to expand. A clear understanding of product selection, injection technique, and patient-specific protocols will be critical to optimising outcomes, ensuring safety, and delivering subtle, natural results.

ACKNOWLEDGMENTS

The authors would like to thank IntelliMed Healthcare Solutions Pvt. Ltd. for assistance in medical writing. The medical writing support for the manuscript was provided by Galderma India.

Funding: No funding sources
Conflict of Interest: None declared
Ethical approval: Not required

REFERENCES

1. Landau M, Fagien S. Science of hyaluronic acid beyond filling: fibroblasts and their response to the extracellular matrix. Plast Reconstr Surg. 2015;136:188S-95S.
2. Kerscher M, Buntrock H, Hund M, Mokosch A, Ogilvie A, Samimi-Fard S, et al. Restylane Skinboosters for the improvement of skin quality: results of a consensus meeting. Cosm Med. 2017;2:28-34.
3. Williams S, Tamburic S, Stensvik H, Weber M. Changes in skin physiology and clinical appearance after microdroplet placement of hyaluronic acid in aging hands. J Cosmet Dermatol. 2009;8:216-25.
4. Nikolis A, Enright KM. Evaluating the role of small particle hyaluronic acid fillers using micro-droplet technique in the face, neck and hands: a retrospective chart review. Clin Cosmet Investig Dermatol. 2018;11:467-75.
5. Wollina U, Goldman A. Dermal fillers: facts and controversies. Clin Dermatol. 2013;31:731.
6. Stabilised hyaluronic acid-based gel of non-animal origin for skin rejuvenation: face, hand, and décolletage. J Drugs Dermatol. Available from: https://jddonline.com/articles/stabilized-hyaluronic-acid-based-gel Accessed on 9 Nov 2025.
7. Bravo B, Correia P, Gonçalves JE, Sant'Anna B, Kerob D. Benefits of topical hyaluronic acid for skin quality and signs of skin aging: from literature review to clinical evidence. Dermatol Ther. 2022;35:e15903.
8. Bukhari SNA, Roswandi NL, Waqas M, Habib H, Hussain F, Khan S, et al. Hyaluronic acid, a promising skin rejuvenating biomedicine: a review of recent updates and pre-clinical and clinical investigations on cosmetic and nutricosmetic effects. Int J Biol Macromol. 2018;120:1682-95.
9. Pawar PP, Nayan S, Venkateshwar G, Raut T, Sharma S, Seth S. Effect of hyaluronic acid dermal fillers for mid-face volume enhancement: a systematic review and meta-analysis. Bioinformation. 2025;21:713-20.
10. Vedamurthy M, Duvvuru V, Chelikani VL. Skin boosters: the upcoming boom in cosmetic dermatology for healthy skin. Cosmoderma. 2023;3:83.
11. A review on skin boosters: hyaluronic acid, poly-L-lactic acid and related agents. Available from: https://doi.org/10.46738/Aesthetics.2023.4.1.12. Accessed on 9 Nov 2025.
12. Galderma Aesthetics. Healthcare professionals Available from: https://www.galdermaaesthetics.ph/hcp.html. Accessed on 13 Nov 2025.
13. Belmontesi M, Romagnoli M. Injectable non-animal stabilized hyaluronic acid as a skin quality booster: an expert panel consensus. J Drugs Dermatol. 2018;17(1). [Page range or article number may be required.]
14. Edsman K, Nord LI, Öhrlund Å, Lärkner H, Kenne AH. Gel properties of hyaluronic acid dermal fillers. Dermatol Surg. 2012;38:1170-9.
15. Yi K, Winayanuwattikun W, Kim S, Wan J, Vachatimanont V, Putri AI, et al. Skin boosters: definitions and varied classifications. Skin Res Technol. 2024;30:e13627.
16. Arora G, Arora S, Sadoughifar R, Batra N. Biorevitalization of the skin with skin boosters: concepts, variables, and limitations. J Cosmet Dermatol. 2021;20:2458-62.
17. Rho NK, Kim HS, Kim SY, Lee W. Injectable skin boosters in aging skin rejuvenation: a current overview. Arch Plast Surg. 2024;51:528-41.
18. Wang F, Garza LA, Kang S, Varani J, Orringer JS, Fisher GJ, et al. In vivo stimulation of de novo collagen production caused by cross-linked hyaluronic acid dermal filler injections in photodamaged human skin. Arch Dermatol. 2007;143:155-63.
19. Dierickx C, Larsson MK, Blomster S. Effectiveness and safety of acne scar treatment with nonanimal stabilized hyaluronic acid gel. Dermatol Surg. 2018;44(Suppl):S10-18.
20. Ribé A, Ribé N. Neck skin rejuvenation: histological and clinical changes after combined therapy with fractional laser and hyaluronic acid gel. J Cosmet Laser Ther. 2011;13:154-61.
21. Lee BM, Han DG, Choi WS. Rejuvenating effects of facial hydrofilling using Restylane Vital. Arch Plast Surg. 2015;42:282-7.
22. Kleine-Börger L, Kalies A, Meyer RS, Kerscher M. Physicochemical properties of injectable hyaluronic acid: skin quality boosters. Macromol Mater Eng. 2021;306:2100134.
23. Puljic A, Frank K, Cohen J, Otto K, Mayr J, Hugh-Bloch A, et al. A scientific framework for comparing hyaluronic acid filler crosslinking technologies. Gels. 2025;11:487.

24. Kerscher M, Eiben-Nielson C, Kleine-Boerger L, Haas H, Sattler S, Sattler G. Restylane Skinboosters for improved facial skin quality using two treatment sessions. J Cosmet Dermatol. 2009;8(3):216-25.
25. Kim J. Effects of injection depth and volume of stabilized hyaluronic acid in human dermis on skin texture, hydration, and thickness. Arch Aesthetic Plast Surg. 2014;20:97.
26. Kerscher M, Bayrhammer J, Reuther T. Rejuvenating influence of a stabilized hyaluronic acid-based gel on facial skin aging. Dermatol Surg. 2008;34:720-6.
27. Reuther T, Bayrhammer J, Kerscher M. Effects of a three-session skin rejuvenation treatment using stabilized hyaluronic acid-based gel on skin elasticity: a pilot study. Arch Dermatol Res. 2010;302:37-45.
28. Lim HK, Suh DH, Lee SJ, Shin MK. Rejuvenation effects of hyaluronic acid injection on nasojugal groove: prospective randomized study. J Cosmet Laser Ther. 2014;16:32-6.
29. Treatment of acne scars with hyaluronic acid: an improved approach. J Drugs Dermatol. Available from: https://jddonline.com/articles/treatment-of-acne-scars. Accessed on 9 November 2025.
30. Man J. A double-blind comparative study of nonanimal-stabilized hyaluronic acid versus human collagen for tissue augmentation of the dorsal hands. Dermatol Surg. Available from: https://journals.lww.com/. Accessed on 9 November 2025.

Cite this article as: Chhabra C, Shenoy C, Ghosh A, Mour M, Sen D, Jadhwar S. SB-NASHA: a review on scientific differentiation and skin quality enhancement. Int J Res Dermatol 2026;12:704-13.