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AESTHETIC PROCEDURES IN PATIENTS WITH AUTOIMMUNE RHEUMATIC DISEASES: A NARRATIVE REVIEW

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ABSTRACT – The aim of this study was to verify the efficacy and safety of the application of aesthetic procedures in patients with autoimmune rheumatic diseases, including systemic lupus erythematosus (SLE), scleroderma, rheumatoid arthritis, and Sjögren's disease.

A narrative review conducted using PubMed, Web of Science, and SciELO databases up to September 2025, utilizing combinations of descriptors relating to autoimmune rheumatic diseases and aesthetic procedures. Included studies comprised observational studies, clinical trials, case series, case reports, and reviews.

The literature demonstrates that procedures such as hyaluronic acid (HA) fillers, botulinum toxin A, and low-fluence lasers may be used with relative safety in selected patients, preferably those in remission or low disease activity. Permanent materials present a greater risk for late immune-mediated reactions and Autoimmune/Inflammatory Syndrome Induced by Adjuvants (ASIA) syndrome. Emerging biostimulators (poly-L-lactic acid and calcium hydroxyapatite), regenerative aesthetic techniques, and thread lifting have growing interest, but require caution in autoimmune rheumatic diseases (AIRD) due to inflammatory and adjuvant effects. Mild local complications were reported in approximately 15% of patients in observational cohorts.

Medical aesthetics represents a useful and complementary therapeutic option for patients with autoimmune rheumatic diseases, but indications should be cautious, with a preference for temporary materials, multidisciplinary planning, and long-term follow-up. We recommend restricting these procedures to periods of remission and prioritizing temporary materials.

KEYWORDS: Autoimmune diseases, Aesthetic procedures, Hyaluronic acid, Botulinum toxin.

LIST OF ABBREVIATIONS: AIRD – autoimmune inflammatory rheumatic diseases; ASIA – autoimmune/inflammatory syndrome induced by adjuvants; CaHA – calcium hydroxyapatite; DAMPs – damage-associated molecular patterns; DMARD – disease-modifying antirheumatic drug; HA – hyaluronic acid; PLLA – poly-L-lactic acid; PMMA – polymethylmethacrylate; RP – Raynaud's phenomenon; SLE – systemic lupus erythematosus; SjD – Sjögren's disease; SSc – systemic sclerosis; TLR – toll-like receptor; UVA-1 – ultraviolet A1 phototherapy.

INTRODUCTION

Over the past decades, aesthetic medicine has experienced significant growth of invasive, minimally invasive, and non-invasive techniques such as dermal fillers, botulinum toxin injections, bioestimulators, energy-based devices, tattoos, and new techniques of plastic surgery[1,2]. This evolution of aesthetic/regenerative medicine not only reflects the increasing demand for advanced techniques but also underscores the growing patient demand for interventions that enhance both appearance and well-being.

Patients with autoimmune rheumatic diseases (AIRD) such as systemic lupus erythematosus (SLE), systemic scleroderma (SSc), Sjögren disease (SjD), and rheumatoid arthritis frequently present cutaneous and subcutaneous changes resulting in functional and aesthetic impact. Therefore, aesthetic techniques may provide an improvement of self-esteem and quality of life[3-5].

Despite this, there are concerns over immune-mediated and inflammatory risks associated with these procedures, especially in predisposed individuals such as patients with AIRD. As there is a lack of evidence on the risks and benefits of aesthetic procedures in this population, the objective of this research is to review the scientific literature about the efficacy and safety of the application of aesthetic procedures in patients with autoimmune rheumatic diseases.

Literature Search and Selection

A narrative review was performed analyzing the scientific literature from PubMed, Web of Science, and SciELO, including publications up to September 2025. Controlled descriptors and keywords in English and Portuguese were used, both individually and in combination, with Boolean operators. Search terms included: “rheumatic diseases”, “autoimmune”, “dermal fillers” were combined with “hyaluronic acid”, “PMMA”, “botulinum toxin”, “laser therapy”, “scleroderma”, “lupus”, “esthetic medicine”, “cosmetic procedures”, “adverse events”, and “ASIA syndrome”.

A manual reference analysis of the most relevant articles was conducted to identify additional key studies that were not retrieved electronically.

The inclusion criteria were adult patients diagnosed with AIRD, including SLE, SSc, SjD, rheumatoid arthritis, dermatomyositis, and other connective tissue diseases. The interventions evaluated involved minimal or non-invasive aesthetic procedures such as dermal fillers, botulinum toxin injections, laser therapies, chemical peels, and implants, including silicone and polymethylmethacrylate (PMMA) or plastic surgery. Outcomes of safety, efficacy, occurrence of local or systemic complications, as well as functional and psychosocial impacts, were included in the strategy, and all types of studies and articles in English, Spanish, or Portuguese were included for analysis.

Experimental *in vitro*/animal studies without clinical extrapolation, reports in patients lacking a confirmed AIRD diagnosis, studies focused solely on non-autoimmune dermatological conditions (e.g., acne, melasma, skin aging), opinion pieces, editorials, letters without clinical data, and/or non-peer-reviewed documents were excluded from the review.

The article selection process was conducted in three sequential stages. First, identification involved removing duplicate records retrieved from multiple databases. Second, initial screening of titles and abstracts by two reviewers to assess eligibility based on predefined inclusion criteria. Third, a full-text eligibility assessment was performed on potentially relevant studies; final inclusion decisions were made based on comprehensive criterion fulfillment. Any discrepancies between reviewers were resolved through consensus.

Data extraction and synthesis involved detailed analysis of selected articles based on participant characteristics; types of disease and aesthetic interventions performed; outcomes including safety, efficacy, local and systemic complications, and impacts on quality of life; duration of follow-up; and concomitant treatment with immunosuppressants or immunobiologicals.

A total of 248 articles were retrieved. Of those, 42 were duplicated, 162 articles were excluded by title and abstract and 28 articles were excluded after the full read article. At the end, 16 articles were included in the review (Figure 1). Table 1 summarizes the main studies on aesthetic procedures in autoimmune rheumatic diseases.

Table 1. Summary of rheumatic diseases studied and aesthetic procedures performed.

Rheumatic disease	Aesthetic procedure	Safety/findings	No. of patients	Reference
Cutaneous lupus erythematosus	Low-fluence laser (PDL, Nd:YAG)	Safe in stable skin disease; Improves erythema and hyperpigmentation	Narrative review (not applicable)	Creadore et al[1], 2020
Systemic lupus erythematosus	Tattoo	Safe in remission; increased risk in active disease (Koebner's phenomenon)	147 (Spain); 192 (Italy)	Natalucci et al[23], 2024; Sabio et al[21], 2019
Localized scleroderma (Morphea)	Fractional CO_2 laser	Superior to UVA-1 in clinical and histological efficacy	30 (clinical trial)	Shalaby et al[19], 2016
Localized scleroderma (Morphea)	Fractional CO_2 laser *vs.* microneedling	Both safe and effective	30 (comparative)	El-Shahawy et al[20], 2025
Systemic scleroderma	Botulinum toxin A – microstomia	Safe; Improves oral opening and masticatory function	20 (open, prospective)	Gonzalez et al[12], 2023
Systemic scleroderma	Botulinum toxin A – Raynaud's phenomenon	Ineffective in RCT; did not reduce the frequency/intensity of seizures	45 (Du[14]); 88 (Senet[13])	Du et al[14], 2022; Senet et al[13], 2023
Lupus, Rheumatoid Arthritis, Sjögren's, Scleroderma	Hyaluronic acid fillers	Generally safe; risk of late inflammatory nodules, especially post-vaccine/infections	Small cases and series (5-20); multicenter review	Beleznay et al[3], 2015; Munavalli et al[4], 2021
Lupus, Rheumatoid Arthritis, Sjögren's, Scleroderma	Permanent fillers (PMMA, silicone)	Increased risk of panniculitis, granulomas, and ASIA; Not recommended	Case reports (1-10)	Biasi et al[18], 1999; Carvalho[15], 2021
Lupus, Rheumatoid Arthritis, Sjögren's, Scleroderma	General aesthetic procedures (fillers, botox, laser, tattoo, piercing)	Majority safe in remission; 15% mild events	497 (47 exposed to procedures)	Felis-Giemza et al[5], 2024; Koren et al[7], 2022
Lupus, Rheumatoid Arthritis, Scleroderma, Sjögren's	Plastic surgeries under immunosuppression	Safe in remission; controlled risk with DMARD/biologics adjustment	Reviews and miscellaneous cohorts (50-200 per study)	Goodman et al[26], 2017; George and Baker[25], 2019

AIRD (autoimmune inflammatory rheumatic diseases), ASIA (Autoimmune/Inflammatory Syndrome Induced by Adjuvants), CO_2 (carbon dioxide), DMARD (disease-modifying antirheumatic drugs), HA (hyaluronic acid), Nd:YAG (neodymium-doped yttrium aluminum garnet), PDL (pulsed dye laser), PMMA (polymethylmethacrylate), RCT (randomized controlled trial), RP (Raynaud's phenomenon), SLE (systemic lupus erythematosus), SjD (Sjögren's disease), SSc (systemic sclerosis), UVA-1 (ultraviolet A1 phototherapy).

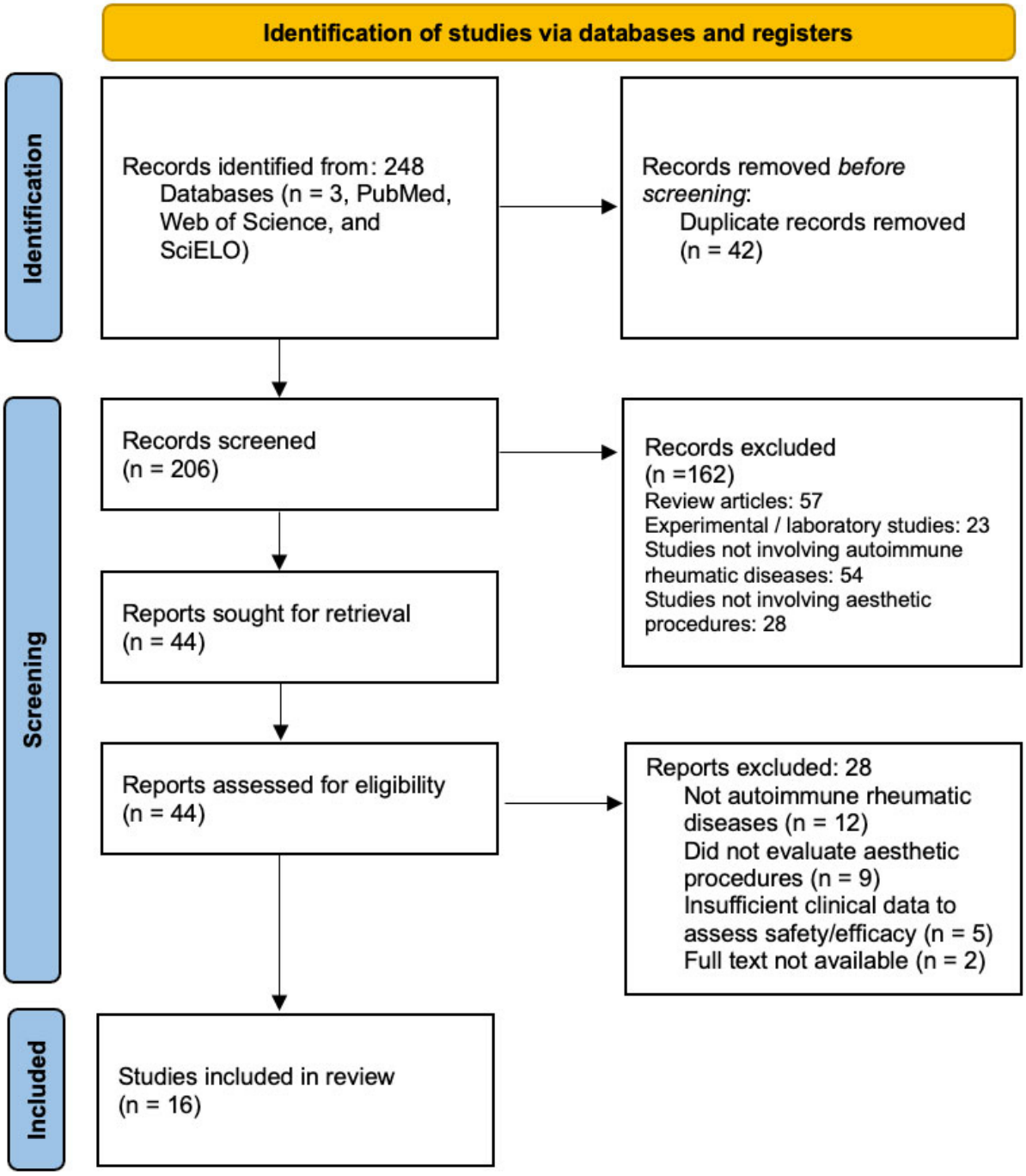

Figure 1. Flowchart of the included studies.

Temporary or Semipermanent Dermal Fillers

Dermal fillers include several products; however, the most common is hyaluronic acid (HA). Composed of polysaccharide molecules, naturally occurring in the body, particularly in skin and connective tissue, are generally well tolerated. However, studies[6-8] indicated that all types of fillers can cause immune-mediated complications, including granulomas, panniculitis, sarcoid-like reactions, and, rarely, the development of systemic autoimmune diseases. Such events may occur a few months or years after the procedure, mainly due to the material type and host predisposition. Furthermore, an association was observed between HLA-B*08* and *DRB1*03 alleles and a fourfold higher risk of late adverse reactions to fillers, reinforcing the role of genetic susceptibility[2].

The use of HA, poly-L-lactic acid, polyacrylamide hydrogel filler, and polymethyl-methacrylate in the lupus population showed subjective satisfactory results with no adverse reactions or disease aggravation[1]. Because poly-L-lactic acid functions as a collagen-stimulating biostimulator, its use in AIRD requires additional caution due to the theoretical risk of amplifying local inflammatory responses.

Despite HA being considered safe and minimally immunogenic, delayed reactions have been reported after COVID-19 vaccination and viral infections, suggesting possible interactions with systemic immune stimuli[4]. Recent preclinical data[6,8,9] indicate that different HA formulations can modulate inflammatory cell recruitment and cytokine expression, explaining variable clinical responses.

Botulinum Toxin

Botulinum toxin type A is a neurotoxin approved in the early 2000s for aesthetic purposes that acts as a paralytic agent by inhibiting the release of acetylcholine at neuromuscular junctions, thereby preventing muscle contraction. Its efficacy, safety, and versatility make it possible for numerous medical indications, such as chronic migraines, excessive sweating, muscle spasticity, and overactive bladder, beyond aesthetic procedures[10,11].

In SSc, patients with reduced oral aperture received 16 units of OnabotulinumtoxinA injected at eight perioral sites. Maximum mouth opening was measured before treatment, functional assessments and quality of life surveys were collected. After two weeks of the injection, there was an improvement in the oral aperture, showing an important short-term symptomatic benefit for microstomia. However, this improvement was not sustained for three months despite patients reporting subjective quality of life improvement[12].

The other two randomized clinical trials[13,14], including patients with Raynaud's phenomenon (RP) secondary to SSc, demonstrate different outcomes. A multicenter trial[13] included 90 participants treated with botulinum toxin or placebo injections in both hands. Measurements of patient-reported frequency of RP episodes, Raynaud's Condition Score, hand function scales, and quality of life showed no differences between groups in reducing RP episodes or improving quality of life, but there was a higher incidence of transient hand weakness in the botulinum toxin group[13]. Another self-controlled trial[14] of 16 patients treated with botulinum toxin in one hand and placebo in the other showed that improvements in mean Reynolds score, skin temperature, thermal recovery, and vasodilation occurred in the treated hands without adverse effects, suggesting the benefits of its injection[14].

Permanent Materials: Silicone and PMMA

Permanent materials such as silicone and PMMA present a greater risk of complications. Many studies[15-18] have reported panniculitis after collagen and plexiglass microbead injections for aesthetic purposes. Late PMMA complications include granuloma formation, chronic infection, tissue necrosis, and hypercalcemia[16] due to extrarenal vitamin D synthesis by inflammatory granulomas. More severe cases may involve the development of Autoimmune/Inflammatory Syndrome Induced by Adjuvants (ASIA) syndrome, with reports of polyautoimmunity (autoimmune uveitis, Sjögren's disease, psoriasis) following PMMA injection[15].

Energy-Based Devices

Cutaneous manifestations are common features in rheumatic patients due to the involvement of systemic autoimmune processes that target connective tissues, including the skin. The immune system in rheumatic conditions mistakenly attacks the body's own skin cells, leading to inflammation, fibrosis, vascular abnormalities, and immune complex deposition. These pathological changes manifest as various skin symptoms such as rashes, ulcers, psoriatic plaques, vasculitis, and sclerosis, reflecting the systemic nature of the disease[1,5-7].

SLE commonly courses with chronic cutaneous lupus, which often results in scarring and pigmentary changes, impacting quality of life. A consensus highlighted that low-fluence lasers such as pulsed dye laser and Nd:YAG can be safely used to treat persistent erythema and hyperpigmentation in patients with remission of skin disease. However, due to the photosensitivity characteristic of lupus, laser parameters must be conservative with careful monitoring[1].

In morphea/SSc, studies have shown that treatment such as UVA-1 phototherapy and fractional CO_2 laser may provide functional and aesthetic benefits for these patients, with high patient satisfaction and mild local complications in up to 15% of cases[1]. A controlled clinical trial[19] showed that the fractional CO_2 laser was superior to UVA-1 phototherapy for clinical and histological improvement and patient satisfaction. More recent comparative studies[20] found similar efficacy between fractional CO_2 laser and microneedling, both deemed safe and well-tolerated.

Tattoo Pigment Implantation

Rheumatic patients have higher risks for tattoos due to immunosuppressive medications and compromised immune function, including increased susceptibility to local and/or systemic infections. The heavy metals and adjuvants contained in the tattoo inks can trigger autoimmune/inflammatory syndromes in rheumatic patients, including ASIA syndrome, granulomatous reactions, sarcoidosis, and systemic inflammatory responses with lymphadenopathy. Moreover, the chronic use of corticosteroids may also increase the risk of healing complications[21-24].

Studies have also assessed the safety of tattooing in lupus patients. Both a Spanish cohort study[21] (n=147) and an Italian study[23] (n=192) found that most patients had no major complications, with adverse events limited to minor local reactions (4 mild flare-ups and 7.4% adverse reactions, respectively). The risk was higher in patients with active disease, suggesting that the procedure should be restricted to those in remission[21,23].

Emerging and Regenerative Aesthetic Procedures

Emerging techniques in aesthetic medicine include regenerative approaches, biostimulatory agents, and minimally invasive lifting procedures. Among these, stem-cell–based therapies and stromal vascular fraction techniques have been proposed for skin rejuvenation and tissue regeneration; however, in patients with autoimmune rheumatic diseases, these approaches remain experimental and should be applied with caution due to their immunomodulatory potential and lack of long-term safety data in AIRD populations[5,6].

Calcium hydroxyapatite (CaHA) and poly-L-lactic acid (PLLA) have been increasingly used as collagen-stimulating biostimulators. Although they are generally well tolerated in the general population, these materials can induce delayed nodules and chronic inflammatory reactions in predisposed individuals through immune activation mechanisms[6,8]. For this reason, their use in AIRD patients should be carefully individualized, preferably restricted to patients in remission[5,7].

Thread lifting using polydioxanone (PDO) threads represents another expanding aesthetic modality. In autoimmune patients, this technique may be associated with localized inflammatory reactions, foreign-body response, fibrosis, and Koebner-like phenomena, especially in susceptible individuals or when disease activity is not fully controlled[6,17]. Given the limited safety data in AIRD, candidate selection must be restrictive and conservative[5,7].

Plastic Surgery and Invasive Procedures Under Immunosuppression

While most literature focuses on fillers and lasers, there are reports of aesthetic plastic surgery procedures performed in patients with autoimmune rheumatic diseases. The main risk is associated with pharmacologic immunosuppression, which can impair wound healing and increase susceptibility to postoperative infections.

International guidelines, such as those from the European Alliance of Associations for Rheumatology (EULAR)[25] and the American College of Rheumatology (ACR)[26], recommend that elective surgeries – including aesthetic procedures – should ideally be scheduled during periods of disease remission or low activity. Additionally, they advise individualized adjustment of immunosuppressive regimens, particularly for patients using biologics such as Tumor Necrosis Factor (TNF) inhibitors or rituximab, including consideration of temporary discontinuation for major surgeries. Cohort studies involving rheumatologic patients undergoing elective surgeries demonstrate that, when these recommendations are followed, the incidence of infectious complications is comparable to that in the general population, supporting the feasibility of such procedures under well-controlled conditions.

General Safety and Patients' Satisfaction with Aesthetic Procedures in AIRD Patients

A multicenter study[5] in Poland assessed 497 patients with AIRD; among them, 47 had received aesthetic treatments, including tattoos, piercings, botulinum toxin, HA fillers, and lasers. Adverse outcomes occurred in only 15% – all were mild, local, and transient (edema, erythema, mild pain), with no significant systemic complications. Most procedures were performed during remission or low disease activity, with many patients on disease-modifying antirheumatic drugs (DMARDs), including immunobiologicals. Over 80% of the patients were very satisfied and reported they could repeat the procedure.

Another observational study[7] (n=194 AIRD patients) reported a high level of satisfaction and without serious side effects. Some other interesting factors were reported as the social motivations for the treatments, while frequently not informing their rheumatologists about the procedures. These findings showed the disconnection between physician caution and patient experiences.

DISCUSSION

The findings of this review indicate that aesthetic procedures in patients with autoimmune rheumatic diseases are feasible in well-selected scenarios. However, the procedures have specific risks that must be carefully considered. Recent studies[5,7] demonstrate that most interventions, when performed during phases of remission or low disease activity, present a similar complication rate to the general population, though local events like erythema, edema, and pain remain relatively common.

Immunopathophysiological Mechanisms Underlying Adverse Reactions

Patients with autoimmune inflammatory rheumatic diseases (AIRD) present a complex immune dysregulation that increases vulnerability to inflammatory and immune-mediated complications after aesthetic procedures. One central mechanism involves abnormal toll-like receptor (TLR) signaling, particularly TLR2 and TLR4. These receptors recognize microbial patterns as well as endogenous danger signals. Low-molecular-weight fragments of hyaluronic acid and degradation products of dermal fillers can act as danger signals for the innate immune system, activating dendritic cells and other immune cells through TLR pathways and inducing pro-inflammatory cytokine release[8,9]. Mechanical tissue trauma produced by needles, energy-based devices and implants may further amplify these cascades by increasing the local burden of damage-associated molecular patterns (DAMPs)[6,8].

Another important mechanism is impaired immune tolerance, which is well documented in systemic lupus erythematosus, systemic sclerosis and rheumatoid arthritis and contributes to an exaggerated response to foreign materials. In this context, patients with AIRD may react more intensely to fillers, pigments and implants, facilitating chronic inflammation, granuloma formation and delayed immune-mediated adverse events[6,8].

Aesthetic biomaterials may also exert adjuvant properties. Substances such as polymethylmethacrylate (PMMA), silicone and other long-lasting implants have been associated with persistent innate immune stimulation and sustained cytokine production, findings that support their role as adjuvants in the development of autoimmune/inflammatory reactions[6,17]. This is consistent with the Autoimmune/Inflammatory Syndrome Induced by Adjuvants (ASIA), in which chronic exposure to adjuvant materials may precipitate or exacerbate autoimmune phenomena in genetically predisposed individuals[15,17].

In addition, the danger-signal hypothesis proposes that tissue injury and implantation of foreign materials induce the release of DAMPs, which activate innate immunity and promote inflammatory cascades[6,17]. In predisposed AIRD patients, this may contribute to disease flares even when the underlying condition is clinically controlled. Finally, molecular mimicry between exogenous components and host antigens has been proposed as another plausible mechanism in ASIA-related and filler-associated autoimmune phenomena, whereby cross-reactive immune responses may sustain chronic inflammation and autoantibody production after aesthetic interventions[6,17].

The psychological and social impact of these procedures should not be underestimated. Patients with lupus, SSc, or morphea frequently present visible cutaneous changes, such as scarring, irregular pigmentation, microstomia, or lipoatrophy, which substantially affect self-esteem and quality of life. The literature suggests that even partial aesthetic improvement can translate into reduced symptoms of anxiety and depression and greater social integration[1,5,7].

Based on a pathophysiological perspective, some factors help explain specific risks. HA is generally considered to have low immunogenic potential; it actively participates in inflammatory pathways: low-molecular-weight fragments can stimulate dendritic cells and fibroblasts, inducing collagen synthesis and pro-inflammatory cytokine expression[2,8]. This explains reports of delayed reactions after systemic immune stimuli such as infection or vaccination[4]. Conversely, clinical studies[8] have shown functional benefits of HA in scleroderma patients, improving cutaneous elasticity and the appearance of contracted areas.

Permanent materials, such as PMMA and silicone, pose a greater risk for immune-mediated complications. These biomaterials serve as adjuvants, potentially inducing chronic granulomas and, in more severe cases, triggering adjuvant-induced autoimmune syndrome (ASIA)[17]. Reports of panniculitis, sarcoidosis-like reactions, and even polyautoimmunity after PMMA use reinforce the need for caution[18]. Genetic predisposition also plays a significant role: carriers of alleles such as HLA-B*08 and DRB1*03 have a higher risk of late immune-mediated reactions, suggesting the potential for individualized candidate selection[2].

In SLE, the application of low-fluence lasers (pulsed dye laser, Nd:YAG) has proven effective for treating erythema and pigmentary changes, without exacerbating disease when used in patients with stable skin[1]. Nonetheless, the photosensitivity inherent to lupus requires conservative parameters and close monitoring. Parallel studies[20] of tattooing in remission-phase patients indicate low complication risk, though the Koebner phenomenon remains a possibility.

In scleroderma and morphea, fractional CO_2 lasers and UVA-1 phototherapy have proven effective in clinical and histological improvement, reducing sclerosis and promoting greater tissue elasticity[19]. Botulinum toxin type A has shown benefit for microstomia management, increasing oral opening and mastication in the short term[12]; however, its efficacy has not been consistently demonstrated in randomized trials for Raynaud's phenomenon[13,14]. These findings suggest the toxin may be considered as an adjunct for mechanical sequelae, but not for vascular manifestations.

During plastic surgery or invasive procedures, special concern is warranted for patients on immunosuppressive therapy. EULAR[25] and ACR[26] recommended that such interventions be scheduled during remission or low disease activity, with individualized adjustment of immunomodulatory therapy. When these criteria are respected, cohort studies indicate that complication rates are not significantly higher than in the general population.

The fact that the studies included in this review involve small sample sizes, short follow-up periods, and a lack of robust randomized trials limits generalizability, though publication bias may also play a role. On the other hand, a key strength of this review is the integration of evidence from diverse sources and study designs, showing broad and practical guidance for rheumatologists and dermatologists.

Multidisciplinary Collaboration and Pre-procedure Assessment

Management of aesthetic procedures in patients with autoimmune rheumatic diseases requires multidisciplinary collaboration involving rheumatologists, dermatologists, and plastic surgeons. Such collaboration allows individualized risk assessment, shared decision-making, and optimization of systemic disease control before any elective procedure[5,7,25,26].

A structured pre-procedure checklist should include confirmation of disease remission or low activity, review of current immunosuppressive and biological therapies, screening for active infections, evaluation of previous reactions to fillers or implants, preference for biodegradable and temporary materials, patient counseling regarding realistic expectations and risks, and planning of post-procedural monitoring[5,7,25,26]. This strategy improves safety, reduces complications and aligns aesthetic interventions with rheumatological best-practice recommendations.

Future directions

Prospective registries, standardized reporting of adverse events, development of biomarkers predicting granuloma formation or ASIA, and long-term (≥5-year) follow-up studies are needed to better characterize safety in AIRD.

In summary, evidence suggests that, when performed during periods of remission – and using preferably temporary fillers such as hyaluronic acid, poly-L-lactic acid, and calcium hydroxyapatite – the procedures are safe, and outcomes are generally satisfactory. In contrast, permanent biomaterials such as silicone and PMMA are associated with an increased risk of immune-mediated reactions and should be avoided. Lasers and botulinum toxin offer good efficacy in specific situations (e.g., microstomia and cutaneous alterations of scleroderma), while plastic surgeries may be conducted with controlled risk when aligned with immunosuppressive management guidelines. Integration among rheumatologists, dermatologists, and plastic surgeons is essential to ensure safety, personalize clinical decisions, and optimize both clinical and aesthetic outcomes in these patients.

CONCLUSIONS

Aesthetic procedures constitute an important additional therapeutic option for patients with autoimmune rheumatic diseases, providing an improvement in functional and psychosocial conditions with minor adverse effects when done during remission or low disease activity, with appropriate material selection.

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