ERAD, 2025, Volume 1, Issue (2), pages 25-27

Commentary

Complementary and alternative medicine in rheumatology

Running title: CAM and rheumatology

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Abstract

Complementary and alternative medicine (CAM) is commonly used by patients with rheumatic diseases to address persistent symptoms such as pain and fatigue. Evidence varies by modality: mind-body practices and some supplements show the most consistent improvement in pain, fatigue, and quality of life while clear disease-modifying effects are less established. Safety is a central concern, as procedure-related complications and drug-herb interactions, though uncommon, can be life-threatening. The most defensible clinical stance is adjunct use: support lower-risk, evidence-aligned CAM as symptom management while maintaining conventional immunomodulatory therapy as the foundation of care.

(Submitted: 05 December 2025; Revised: 12 December 2026; Accepted 15 December 2025)

Keywords- Acupuncture; Alternative medicine; Autoimmunity; Supplements

I. INTRODUCTION

Rheumatic diseases are chronic, often unpredictable and commonly treated with long-term immunomodulating drugs that can be lifechanging for our patients' 1uality of life. It isn't surprising that complementary and alternative medicine (CAM) keeps showing up in every day rheumatology practice. People reach for CAM for reasons that are often rational from their perspective: costs and access barriers, fear of medication toxicity, persistent symptoms despite medical care and the desire to fell more control over their daily lives [1,2]. Since autoimmune rheumatic diseases affect a fair share of the population (3-5%), even a modest rate of CAM use becomes a large phenomenon.

What deserves attention is that CAM is not a single intervention, but an umbrella term that covers mind-body strategies, procedures such as acupuncture, supplements and a growing set of add-on therapies such as platelet rich plasma (PRP) or hyaluronic acid (HA) injections. Treating CAM as one single category leads to two equally unhelpful mistakes: Uncritical endorsement ("It's all natural so it's safe") or blanket dismissal ("It's all placebo"). The purpose of this commentary is to summarize literature regarding CAM modalities that plausibly improve symptom burden and quality of life for some patients.

II. CAM IN RHEUMATOLOGY

A. PATIENT REPORTED OUTCOMES

Looking around conditions such as systemic lupus erythematosus (SLE) or rheumatoid arthritis (RA), the more consistent theme is symptom modulation. This is important because while inflammatory markers improve with immunosuppressive treatment, fatigue,

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pain, functional limitation and sleep disruption often remains. A randomized clinical trial (RCT) in patients with SLE that combined behavioral therapy with biofeedback reported larger improvements in pain and phycological functioning compared with supportive counseling or usual care alone [4]. Similarly, yoga and tai chi in inflammatory arthritis have been connected with improvements in pain, function and wellbeing [5]. In rheumatology where patient reported outcomes are central, this kind of benefit should not be minimized. On the other hand, trials are often small, heterogenous and difficult to blind while outcomes vary. A striking reminder comes from osteoarthritis studies, where sham and true acupuncture produced similar improvements [6]. We should always keep in mind that a safe intervention that reliably improves pain or sleep can still be clinically meaningful, as long as it doesn't replace disease-modifying therapy.

B. SUPPLEMENTS

Supplements stand in the middle ground between lifestyle and pharmacology. Omega-3 supplements have been used in SLE and based on a recent systematic review and meta-analysis they seem to improve disease activity, decrease oxidative stress while improving the patients' lipid profile [7]. In RA specifically, oxidative stress and antioxidant depletion have been used to justify trials of vitamins A, C, and E, with one study reporting improved antioxidant markers and reduced disease activity indices when antioxidants were added to conventional therapy [8].

The practical problem is that supplements behave like medications in the real world but patients often treat them like food. They tend to mix brands, change doses and combine products sometimes without informing their clinicians. This gap between biological plausibility and real-life use is where the risk accumulates.

C. BOTANICALS

Herbal based therapies are often marketed as natural and gentle but the safety data argues the opposite: these are active exposures with meaningful potential for toxicity, contamination and interactions [9,10]. In systemic sclerosis for example, botanicals such as Salvia miltiorrhiza, Centella asiatica, Capparis spinosa are discussed in relation to anti-inflammatory, antioxidant, or antifibrotic pathways, and ginkgo has been explored for Raynaud's phenomenon [11-12].

D. SAFETY MATTERS

The adverse events are arguably the most important part, because they equip clinicians to move beyond vague warnings. Acupuncture, for example, is generally perceived as low-risk, yet mechanical complications such as pneumothorax, bleeding, and even cardiac tamponade have been reported [13-15]. Infectious risks rise when sterilization practices are poor, with reports ranging from local skin infections to hepatitis and even HIV transmission [16,17]. Herbal products create a different risk profile: enzyme induction (for example St. John's wort reducing drug levels), coagulation interactions (ginkgo with warfarin), and organ toxicity [18]. There are also reports of serious liver injury and renal damage linked to certain traditional preparations [19]. These aren't arguments to prohibit CAM universally. They are arguments to treat CAM with the same seriousness we apply to any biologically active intervention.

E. WHERE CAM FITS

A patient-centered position emerges from the evidence summarized: CAM is most defensible when used complementarily in order to reduce symptom burden, improve function, and support coping, while evidence-based disease-modifying therapy remains the backbone of rheumatology management. Acupuncture may be reasonable for pain in selected patients when performed by trained practitioners and integrated with standard care, especially given signals from clinical studies and meta-analyses [4]. Yoga, tai chi, and structured relaxation training have comparatively favorable safety profiles when delivered appropriately [5]. Supplements like vitamin D or omega-3 may be appropriate in specific contexts, but should be approached with dosing discipline, attention to interactions, and avoidance of "stacking". For higher-risk biologically active products (certain herbal mixes, unregulated preparations), the default should be careful skepticism and active monitoring, not passive tolerance.

III. CONCLUSION

CAM in autoimmune disease is best understood as a spectrum of adjunct tools where some are promising for symptom relief, some biologically plausible but under-proven, and some carrying risks. The clinician's job is not to "approve" or "forbid" CAM, but to help patients choose options that are safest, most evidence-aligned, and least likely to derail effective treatment.

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AUTHOR CONTRIBUTIONS

All authors participated in manuscript preparation. All authors approved the final version of the manuscript.

CONFLICT OF INTEREST

All Authors declare no conflict of interest.

References

[1]. Kocyigit BF, Sagtaganov Z, Yessirkepov M, Akyol A. Assessment of complementary and alternative medicine methods in the management of ankylosing spondylitis, rheumatoid arthritis, and fibromyalgia syndrome. Rheumatol Int 2023; 43: 617–625

[2]. Pagán JA, Pauly MV. Access to conventional medical care and the use of complementary and alternative medicine. Health Aff (Millwood) 2005; 24: 255–262

[3]. Jin X, Wang J, Du YJ, Wang YY, Lu ZW, Li BZ. Causal associations between autoimmune diseases and cognitive impairment: A Mendelian randomization study. Medicine (Baltimore). 2026;105(1):e46835

[4]. Greco CM, Rudy TE, Manzi S. Effects of a stress-reduction program on psychological function, pain, and physical function of systemic lupus erythematosus patients: a randomized controlled trial. Arthritis Rheum 2004; 51: 625–634

[5]. Moonaz SH, Bingham CO 3rd, Wissow L, Bartlett SJ. Yoga in sedentary adults with arthritis: effects of a randomized controlled pragmatic trial. J Rheumatol 2015; 42: 1194–1202

[6]. Scharf HP, Mansmann U, Streitberger K, et al. Acupuncture and knee osteoarthritis: a three-armed randomized trial. Ann Intern Med 2006; 145: 12–20

[7] Duarte-García A, Myasoedova E, Karmacharya P, et al. Effect of omega-3 fatty acids on systemic lupus erythematosus disease activity: A systematic review and meta-analysis. Autoimmun Rev. 2020;19(12):102688

[8] Jaswal S, Mehta HC, Sood AK, Kaur J. Antioxidant status in rheumatoid arthritis and role of antioxidant therapy. Clin Chim Acta 2003; 338: 123–129

[9]. Niggemann B, Grüber C. Side-effects of complementary and alternative medicine. Allergy 2003; 58: 707–716

[10] Ahmed MT, Loutfy N, Yousef Y. Contamination of medicinal herbs with organophosphorus insecticides. Bull Environ Contam Toxicol 2001; 66: 421–426

[11] Cao YL, Li X, Zheng M. Capparis spinosa protects against oxidative stress in systemic sclerosis dermal fibroblasts. Arch Dermatol Res 2010; 302: 349–355

[12] Assar S, Khazaei H, Naseri M, et al. Natural Formulations: Novel Viewpoint for Scleroderma Adjunct Treatment. J Immunol Res 2021; 2021: 9920416

[13]. Niggemann B, Grüber C. Side-effects of complementary and alternative medicine. Allergy 2003; 58: 707–716

[14]. Mazal DA, King T, Harvey J, Cohen J. Bilateral pneumothorax after acupuncture. N Engl J Med 1980; 302: 1365–1366

[15]. Kirchgatterer A, Schwarz CD, Höller E, et al. Cardiac tamponade following acupuncture. Chest 2000; 117: 1510–1511

[16]. Scheel O, Sundsfjord A, Lunde P, Andersen BM. Endocarditis after acupuncture and injection – treatment by a natural healer. JAMA 1992; 267: 56

[17]. Vittecoq D, Mettetal JF, Rouzioux C, et al. Acute HIV infection after acupuncture treatments. N Engl J Med 1989; 320: 250–251

[18]. Wang Z, Hamman MA, Huang SM, et al. Effect of St John's wort on the pharmacokinetics of fexofenadine. Clin Pharmacol Ther 2002; 71: 414–420

[19]. Itoh S, Marutani K, Nishijima T, et al. Liver injuries induced by herbal medicine, syo-saiko-to (xiao-chai-hu-tang). Dig Dis Sci 1995; 40: 1845–1848