Pruritus Associated with Systemic Sclerosis: A Systematic Review of Treatment-Based Clinical Trials

Authors:

Kiana Mortezaei [a], Rishika Pasula[a], Meryem Nursoy[b], Amit Syal[c], Ioannis Panayiotou[d], Geeta Kumari[e], Andreas Chatzitoffis[f], Pavle Milutinovic[g], Olajumoke O. Fadugba[g], Chris T. Derk[h]

Affiliations:

[a] Drexel College of Medicine, Philadelphia, PA, USA

[b] Hull University Teaching Hospitals NHS Trust, Hull, UK

[c] Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, USA

[d]School of Medicine, University of Cyprus, Nicosia, Cyprus

[e]Department of Medicine, University of Pennsylvania, Philadelphia, PA, USA

[f] Department of Psychiatry, University of Cyprus, Nicosia, Cyprus

[g] Division of Pulmonary, Allergy and Critical Care, University of Pennsylvania, Philadelphia, PA, USA

[h] Division of Rheumatology, University of Pennsylvania, Philadelphia, PA, USA

Encore Disclosure:

This paper was published in Rheumatology International in June 2026

Mortezaei, K., Pasula, R., Nursoy, M. *et al.* Pruritus associated with systemic sclerosis: a systematic review of treatment-based clinical trials. *Rheumatol Int* 46, 166 (2026).

https://doi.org/10.1007/s00296-026-06190-5

Abstract

This paper aims to examine the latest research on treatments for itch (pruritus) in people with systemic sclerosis (SSc), identify areas where information is lacking, and propose suggestions for future studies. A comprehensive literature search was performed in PubMed and Scopus in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify studies evaluating therapeutic interventions for pruritus in SSc. Eligible studies included randomized controlled trials, cohort studies, and case series comprising a minimum of three patients. Data extraction encompassed study design, patient demographics, pruritus assessment instruments including validated and non-validated measures, and clinical outcomes. Studies were excluded if they concerned localized scleroderma, irrelevant populations, case reports, systematic reviews, lacking relevant outcome data, or incomplete trials. Ten studies met criteria, evaluating immunomodulatory agents, mast cell stabilizers, opioid receptor antagonist, and lysophosphatidic acid receptor antagonists. Pruritus assessment varied and was often secondary to fibrosis outcomes. Oral lenabasum improved pruritus in a phase II trial; low-dose opioid receptor modulators and rituximab also showed qualitative improvement. Pruritus is a frequently overlooked yet clinically significant symptom in systemic sclerosis (SSc) that negatively impacts patients' quality of life. Existing evidence regarding effective therapeutic options remains limited. Future research should prioritize pruritus as a predefined outcome and utilize validated assessment instruments to inform treatment strategies and enhance patient quality of life.