



XEROSIS CUTIS: A COMPREHENSIVE REVIEW ON CONVENTIONAL AND HOMOEOPATHIC APPROACHES

Dr. Namrata Jani*

Postgraduate Scholar, Department of Organon of Medicine and Homoeopathic Philosophy, Parul Institute of Homoeopathy and Research Hospital, Parul University, Vadodra, Gujarat, India*Corresponding Author

Dr. Vibhuti Pathak

Professor and Head of Department, Department of Organon of Medicine and Homoeopathic Philosophy - UG, Parul Institute of Homoeopathy and Research Hospital, Parul University, Vadodra, Gujarat, India

Dr. Khyati Lakhani

Professor and Head of Department, Department of Organon of Medicine and Homoeopathic Philosophy - PG, Parul Institute of Homoeopathy and Research Hospital, Parul University, Vadodra, Gujarat, India

ABSTRACT Xerosis cutis is a prevalent dermatological condition characterised by dry, rough, pruritic skin resulting from impaired epidermal barrier function with significant impact on quality of life particularly among elderly individuals. Contributing factors include ageing, environmental exposure and systemic diseases. Conventional management centres on barrier restoration while Homoeopathy proposes an individualized constitutional approach with frequently indicated remedies including Petroleum, Graphites, Sulphur, Alumina and Arsenicum album. This narrative review synthesises the epidemiology, aetio-pathogenesis, clinical features and management of xerosis cutis drawing on observational studies, cross-sectional studies, systematic reviews, case reports and case studies indexed in PubMed, SCOPUS and Google Scholar alongside classical Homoeopathic materia medica texts while highlighting validated outcome instruments. Further well-designed clinical studies are warranted to strengthen the homoeopathic evidence base.

KEYWORDS : Xerosis Cutis; Homoeopathy; Skin Barrier Dysfunction; Validated Assessment Tools

INTRODUCTION

Xerosis cutis is a prevalent dermatological condition characterised by dryness, roughness, scaling and pruritus resulting from disruption of the stratum corneum barrier. The worldwide prevalence is estimated at 29–85%, rising markedly with advancing age making it a leading cause of pruritus in elderly populations [1]. Sites with fewer sebaceous glands like the lower legs, forearms, hands and feet are most commonly affected [2]. If inadequately treated, xerosis escalates into a self-reinforcing neuro-immune cycle causing fissuring, secondary infection, sleep disturbance and significant quality-of-life impairment. Conventional management focuses on barrier restoration through moisturisers, humectants and occlusives. Homoeopathy offers an individualized constitutional approach based on the totality of symptoms. Despite widespread clinical utilisation in India, systematically designed clinical studies evaluating homoeopathic interventions in xerosis cutis remain limited [16]. This review synthesises both perspectives while highlighting validated outcome tools and research gaps.

Results and Discussion

Definition and Epidemiology

The ICD-11 (ED54) defines xerosis cutis as dryness of the skin surface due to epidermal defatting or desiccation from low ambient humidity, occurring most commonly in the elderly on the lower legs and constituting a major cause of pruritus [3]. A large cross-sectional study of 5,547 participants found 60% had dry skin; key determinants included increasing age, female sex, low ambient temperature, smoking, eczema and use of statins or diuretics. Nursing home populations demonstrate prevalence rates of 30–75% and the condition is now recognised as a component of physiological skin ageing [1].

Aetiology

Xerosis cutis is multifactorial in origin [9]. Table 1 summarises the principal aetiological categories and contributing factors.

Table 1. Aetiological Classification of Xerosis Cutis

Category	Contributing Factors
Ageing	Skin atrophy, reduced sebaceous activity, diminished moisture retention, impaired barrier recovery
Systemic Disease	Diabetes mellitus, chronic kidney disease, hypothyroidism, eczema, psoriasis, ichthyosis

Medications	Diuretics, statins, retinoids, targeted cancer therapies
Environmental	Low humidity, cold weather, UV radiation, indoor heating, excessive cleansing
Lifestyle	Harsh soaps, prolonged hot bathing, vigorous drying, inadequate hydration
Genetic	Filaggrin (FLG) loss-of-function mutations, reduced ceramide synthesis enzyme activity

Aetio-pathogenesis

- The stratum corneum functions as a 'brick and mortar' barrier of corneocytes embedded within an intercellular lipid matrix of ceramides, free fatty acids and cholesterol.
- Disruption of this architecture elevates transepidermal water loss (TEWL) and precipitates xerosis [9].
- Filaggrin deficiency, genetic or age-related, depletes natural moisturising factor (NMF) and raises skin pH while environmental insults further deplete the ceramide pool compounding permeability failure [10].
- Barrier disruption concurrently activates neuro-immune pathways and PAR-2 upregulation triggering histamine-independent pruritus and sustaining a self-perpetuating itch–scratch–barrier-damage cycle [11].

Clinical Features

- Xerosis cutis presents with dry, scaly, rough and greyish skin, with decreased elasticity, coarse texture, wrinkling and erythema.
- Patients experience tightness, pruritus and burning. Severe cases progress to fissuring, asteatotic eczema and secondary infection through persistent scratching.
- Objective assessment may be employed using validated instruments like the Overall Dry Skin Score (ODSS), assessing dryness severity across anatomical regions. A structured critical care skincare protocol study using ODSS demonstrated 70% of patients achieving absent dryness by day 14, versus 44.7% in controls with very severe dryness, confirming the instrument's clinical responsiveness [12].
- Quality-of-life studies using the DLQI demonstrate that xerosis significantly affects work, social functioning, sleep and emotional well-being with higher rates of anxiety and depression in patients with concurrent atopic dermatitis [13].

Conventional Management

Management centres on barrier restoration and prevention of TEWL [9]. Table 2 summarises the principal therapeutic agent classes.

Table 2. Conventional Topical Agents in Xerosis Cutis Management

Agent Class	Examples	Mechanism	Clinical Role
Emollients	Lanolin, ceramide creams	Fill intercellular gaps; smooth and soften skin surface	First-line; improve texture and reduce scaling
Humectants	Urea (10%), glycerine, NMF components	Attract and retain water in stratum corneum; regulate aquaporins	Urea strongest evidence for symptom relief and barrier restoration
Occlusives	Petrolatum, paraffin	Form film to block transepidermal water loss	Adjunct to humectants; particularly effective post-bathing
Keratolytics	Salicylic acid, lactic acid	Break corneocyte adhesion; promote desquamation	Thickened plantar xerosis; fissures
Cleansers	Soap-free, pH 5.5–6.0 cleansers	Preserve acid mantle; avoid ceramide depletion	Replace alkaline soaps; cornerstone of hygiene advice

Homoeopathic Approach to Xerosis Cutis Philosophical and Miasmatic Framework

Homoeopathy, founded by Dr. Samuel Hahnemann on the fundamental law of *similia similibus curentur*, let likes be cured by likes, treats the patient as a whole rather than the disease in isolation [17]. Remedy selection follows a full individualized case analysis encompassing the patient's physical, mental and constitutional characteristics with the final prescription determined by the totality of symptoms as described in aphorism 7 [16,17]. Skin diseases are accordingly understood not as isolated local phenomena but as expressions of internal constitutional imbalance wherein all signs and symptoms are evaluated on the basis of their significance and predominance [19].

Chronic skin conditions including xerosis cutis are understood in homoeopathic theory through the framework of chronic miasms Psora, Sycosis and Syphilis as described by Hahnemann [17]. Psora, the primary and most fundamental miasm, is characterised by deficient vital action and underlies the majority of chronic skin complaints tending toward dryness, roughness and an inability to perspire normally, placing most cases of xerosis cutis within a predominantly psoric miasmatic background [20]. The psoric predisposition toward dryness and barrier deficiency may correspond to the flaggrin-deficient, ceramide-depleted stratum corneum of contemporary dermatological science that may propose a theoretical convergence upon the same clinical reality of constitutional susceptibility to barrier failure at different levels of description.

Homoeopathic Materia Medica for Xerosis Cutis

Available clinical evidence, while predominantly case-based and observational, demonstrates favourable outcomes in conditions closely related to xerosis. Bhalerao et al. demonstrated improvement in cracked heel patients receiving Graphites 30 and individualized homoeopathic medicines in a randomised controlled trial [21]. Sharma et al. documented successful individualized management of palmoplantar keratoderma [22] while Rompicherla and Ponnampallil reported positive outcomes in plantar psoriasis [23]. Several homoeopathic medicines are known to treat plantar xerosis cutis and their selection, when done according to individualization, yields the remedies summarised in Table 3 [4,5,6,7,8].

Table 3. Homoeopathic Materia Medica for Xerosis Cutis: Principal Remedies [4,5,6,7,8]

Remedy	Key Skin Characteristics	Modalities	Associated Symptoms
Petroleum	Extremely dry, rough, cracked skin; deep fissures on heels, fingertips, palms; slow-healing fissures that bleed	Worse: winter, cold; Better: summer, warmth	Occupational/acquired xerosis; seasickness tendency

Graphites	Dry, fissured skin at margins of orifices; rough, hard texture; sticky honey-like discharge; nail dystrophy	Worse: warmth, at night; Better: cold open air	Obesity, constipation, chilliness, indolent personality
Arsenicum album	Parchment-like, dry, scaly skin with large scales; burning paradoxically relieved by warmth	Worse: cold, midnight; Better: warmth, warm applications	Profound restlessness, weakness, fastidiousness; CKD, cachectic states
Sulphur	Dry, dirty-looking, unhealthy skin; violent itching; tendency to recurrence; burning sensations	Worse: warmth, bed, washing; Better: open air	Warm-blooded, philosophical, untidy; anti-psoric intercurrent
Alumina	Extreme dryness; itching without eruption (pruritus sine materia); global mucosal dryness	Worse: warmth of bed, potato; Better: cold applications	Elderly, debilitated; confused identity; atonic constipation
Sarsaparilla	Dry, shrivelled, dirty skin; deep rhagades; thickened skin particularly on soles	Worse: after urination, at end of micturition; Better: uncovering	History of urinary complaints; wasting in children
Silicea	Fissured skin at fingertips and heels; impaired tissue nutrition; unhealthy skin that suppurates	Worse: cold, draught; Better: warmth, wrapping up	Chilly, yielding, conscientious; profuse offensive sweat on feet

CONCLUSION

Xerosis cutis is a highly prevalent, multifactorial condition resulting from stratum corneum barrier disruption, filaggrin deficiency, ceramide depletion, impaired NMF synthesis, neuro-immune pruritus activation and systemic and iatrogenic contributions. Conventional medicine provides an established framework through validated barrier restoration protocols and outcome instruments like ODSS and DLQI [12,14]. Homoeopathy offers a patient-centred individualized approach in which xerosis is understood as an expression of constitutional susceptibility and psoric imbalance, addressed through remedies with well-characterised profiles of medicines like Petroleum, Graphites, Sulphur, Alumina, Arsenicum album, Sarsaparilla and Silicea developed over two centuries of clinical observation. Further rigorously designed clinical trials employing validated assessment tools are essential to substantiate this integrative evidence base [4,5,6,7,8].

Acknowledgments

The authors wish to acknowledge the researchers, clinicians and authors whose published works and whose contributions to homoeopathic literature formed the basis of this review. The library and academic resources provided by Parul University are also gratefully acknowledged.

Conflicts of Interest: None declared.

REFERENCES

- Mekić S, Jacobs LC, Gunn DA, Mayes AE, Ikram MA, Pardo LM, et al. Prevalence and determinants for xerosis cutis in the middle-aged and elderly population. *J Am Acad Dermatol*. 2019;81(4):963–9.
- Dalgleish L, Campbell J. Xerosis in older adults. *Adv Skin Wound Care*. 2022;35(1):62–3.
- World Health Organization. International classification of diseases, 11th revision (ICD-11). Geneva: WHO; 2019.
- Boericke W. Pocket manual of homoeopathic materia medica and repertory. 9th ed. New Delhi: B. Jain Publishers; 2009.
- Phatak SR. Materia medica of homoeopathic medicines. 2nd ed. New Delhi: B. Jain Publishers; 1999.
- Kent JT. Lectures on homoeopathic materia medica. New Delhi: B. Jain Publishers; 2010.
- Allen TF. The encyclopaedia of pure materia medica. New Delhi: B. Jain Publishers; reprint 2002.
- Hering C. The guiding symptoms of our materia medica. Vols. 1–10. New Delhi: B. Jain Publishers; reprint 2004.
- Barco D, Giménez-Arnau A. Xerosis: a dysfunction of the epidermal barrier. *Actas Dermo-Sifiliográficas*. 2008;99(9):671–82.

10. Augustin M, Wilsmann-Theis D, Körber A, Kersch M, Itschert G, Dippel M, et al. Diagnosis and treatment of xerosis cutis. *J Dtsch Dermatol Ges.* 2019;17(S7):3–33.
11. Garibyan L, Chiou AS, Elmariah SB. Advanced aging skin and itch: addressing an unmet need. *Dermatol Ther.* 2013;26(2):92–103.
12. Mahran GS, Zied WR, Abdelrahman HM, Ahmed GH, Mekawy MM, Alharbi HF. Efficacy of a skincare protocol in reducing xerosis cutis risk in critically ill patients. *Nurs Crit Care.* 2025;30(2):e13291.
13. von Stülpnagel CC, Augustin M, da Silva N, Schmidt L, Nippel G, Sommer R. Exploring the burden of xerosis cutis and the impact of dermatological skin care from a patient's perspective. *J Dermatol Treat.* 2022;33(5):2482–7.
14. Finlay AY, Khan GK. Dermatology Life Quality Index (DLQI): a simple practical measure for routine clinical use. *Clin Exp Dermatol.* 1994;19(3):210–6.
15. Fluhr JW, Alexis AF andriessen A, Ferero Barrios OL, Bjerring P, Foley P, et al. A global perspective on the treatment and maintenance of mature skin using gentle cleansers and moisturizers. *Int J Dermatol.* 2024;63(12):1676–84.
16. Gupta R, Manchanda RK. Textbook of dermatology for homoeopaths. New Delhi: B. Jain Publishers; 2005.
17. Hahnemann S. Organon of medicine. 6th ed. Boericke W, translator. New Delhi: B. Jain Publishers; 2002.
18. Kent JT. Repertory of the homoeopathic materia medica. 6th ed. New Delhi: B. Jain Publishers; 2005.
19. Deka MK, Shaw U. A literature review of homeopathic materia medica for skin disease. *Int J Homoeopath Sci.* 2024;8(1):485–7.
20. Sarkar BK. Hahnemann's Organon of medicine. Calcutta: M. Bhattacharya & Co.; 2005.
21. Bhalerao DS, Bagmar DK, Zodgekar DV, Patil DS, Deepali D, Thete DA, et al. Role of homeopathic medicine Graphites 30 and individualized homeopathic medicines in cracked heel in age group of 18–70 years: a randomised control trial. *Int J Homoeopath Sci.* 2024;8(4).
22. Sharma S, Sharma N, Gosainwal I. Individualized homeopathic approach of palmoplantar keratoderma: a case report. *Int J Homoeopath Sci.* 2020;4(2):15–8.
23. Rompicherla GK, Ponnamp HB. Homoeopathy in plantar psoriasis: an evidence-based case report. *Indian J Res Homoeopathy.* 2022;16(4).