

Systematic Review of Immune-Related Dermatological Conditions Among Refugee and Migrant Populations

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1. Introduction

- Providing dermatological care to refugee and migrant populations presents significant challenges.
- Current literature on the epidemiology and management of skin conditions in refugee and migrant populations remains sparse.
- This review presents the prevalence, treatment outcomes, and contributing factors of immune-related skin conditions in refugee and migrant populations.
- Immune-related skin conditions- any skin condition driven by a hyperactive immune response or an autoimmune response

2. Methods

SYSTEMATIC LITERATURE SEARCH

A systematic literature search in the PubMed, Embase, and Web of Science databases was conducted up to September of 2024

SEARCH TERMS

Combinations of the search terms 'refugee', 'immigrant', 'asylum seeker', 'dermatology', and 'skin conditions' were used to identify all relevant articles.

INCLUSION CRITERIA

We included 15 studies that reported on immune-related skin conditions in refugee, migrant, and asylum-seeking populations.

EXCLUSION CRITERIA

5 studies were excluded from this review due to unclear reporting of immune-related skin conditions.

3. Prevalence of Skin Conditions

This review included 15 studies with 1,394,411 patients, among which 52,541 patients were diagnosed with 18 immune-related skin conditions.

Skin Condition	Count	Percentage (%)
Eczema (Atopic Dermatitis)	51,977	98.93
Immuno-allergic Dermatoses	191	0.37
Psoriasis	110	0.21
Alopecia	101	0.19
Vitiligo	69	0.13
Urticaria and Erythema	32	0.06
Behcet's Disease	13	0.025
Seborrheic Dermatitis	13	0.02
Contact Dermatitis	12	0.02
Lichen Planus	11	0.02
Bullous Dermatoses	5	0.0095
Prurigo Nodularis	4	0.0076
Discoid Lupus Erythematosus (DLE)	2	0.0038
Gianotti Crosti Syndrome	1	0.0019
Fixed Drug Eruptions	1	0.0019
Exfoliative Dermatitis	1	0.0019
Neurodermatitis	1	0.0019
Skin Sarcoidosis	1	0.0019

TREATMENT APPROACH | RESPONSE

ATOPIC DERMATITIS

- Topical corticosteroids
- Emollients
- Moisturizes
- Antihistamines
- Avoidance of triggers
- Generally effective
- Limited availability of emollients in certain areas reduced treatment efficacy

PSORIASIS

- Topical corticosteroids
- Topical tar preparations
- Topical vitamin D analogs
- Systemic treatments (methotrexate and retinoids) in severe cases
- Topical treatments showed improvement- long-term outcomes were not well-documented
- Moderate-to-severe psoriasis required systemic therapies- some patients experienced partial improvement

VITILIGO

- Topical corticosteroids
- Phototherapy
- Camouflage makeup
- The response to treatment was not reported

BEHCET'S DISEASE

- Corticosteroids
- Colchicine
- Azathioprine
- Corticosteroid- generally effective in controlling inflammation and reducing flare-ups
- Colchicine and azathioprine were generally effective in managing systemic involvement- except one case where colchicine was ineffective in controlling disease
- azathioprine required careful monitoring due to immunosuppressive effects

LICHEN PLANUS

- Topical and oral corticosteroids
- Antihistamines
- Corticosteroid mouthwashes and pastes
- Topical corticosteroids- improvement in some patients
- Severe cases required oral corticosteroids and extended treatment durations

SEBORRHEIC DERMATITIS

- Topical corticosteroids
- Reduced inflammation, alleviated symptoms.

BULLOUS DERMATOSES

- Corticosteroids
- Immunosuppressants
- Improvement in pemphigus vulgaris cases

DISCOID LUPUS ERYTHEMATOSUS

- Topical corticosteroids
- Photoprotection
- Hydroxychloroquinone
- Mild cases- positive outcomes
- Severe cases with systemic treatments- variable outcomes

FIXED DRUG ERUPTION

- Topical corticosteroids
- Avoidance of trigger
- No recurrence of symptoms after avoiding the trigger (achiote dye/tartrazine) for four months

SARCOIDOSIS

- Corticosteroids
- Colchicine
- Improvement

The management of immuno-allergic dermatoses, alopecia, urticaria and erythema, contact dermatitis, prurigo nodularis, Gianotti Crosti syndrome, exfoliative dermatitis, and neurodermatitis were not reported.

4. Risk Factors

- Low socioeconomic status often led to delayed diagnosis and treatment [4, 5, 8, 9].
- Exposure to new allergens and environmental irritants exacerbated eczema and psoriasis [2-9].
- Overcrowded and unsanitary living environments exacerbated skin diseases [1, 2-4, 6, 7].
- Limited access to medical care, compounded by language barriers, cultural differences, and lack of familiarity with healthcare systems, contributed to delays in seeking treatment [1, 6, 9].
- Nutritional deficiencies and exposure to food additives were associated with poorer skin health and immune-mediated reactions [1, 10].
- Psychological stress was found to worsen immune-related skin conditions.
- Maternal smoking, early childhood antibiotic use, and dietary changes were associated with a higher risk of eczema in children [1, 5, 7, 9].

5. Discussion

This review highlights that refugee and migrant populations are significantly affected by immune-related skin conditions.

- There was effective management of mild immune-related skin conditions with topical therapies, but those with moderate-to-severe conditions showed variable responses.
- Variability may be attributed to a lack of standardized treatment protocols, inconsistent access to first-line or advanced therapies, and limited treatment options.
- These findings underscore the complexity of managing chronic dermatologic conditions in transient and resource-limited populations.

Risk factors are not thoroughly reported and explored.

- Psychological stress is often underreported among refugee and migrant populations.
- There is high prevalence of mental health issues such as post-traumatic stress disorder, depression, anxiety [11].
- Future studies should incorporate validated mental health screening tools to identify psychological barriers.
- The studies in this review fail to address how legal status influences the care that refugees and migrants receive.
- Secondary healthcare services like dermatology frequently require out-of-pocket payments or co-payments, making access difficult for those without financial means [12].

6. Conclusion

There is a need for future studies to focus on three key areas for a better understanding of immune-related skin conditions among refugee and migrant populations.

- Detailed reporting on the specific dermatologic conditions.
 - Long-term studies to evaluate efficacy and safety of current treatment options.
 - Multifaceted barriers to dermatologic care that significantly influence outcomes.
- Range of treatment options available and accessible may not be adequate.**
- Developing tailored healthcare interventions and advocacy efforts are crucial to improve dermatologic outcomes for these vulnerable population.
 - Future studies can inform the development of comprehensive, population-specific clinical guidelines.

7. References

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