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Psychiatric Aspects of Lichen Simplex Chronicus: A Systematic Literature Review

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A B S T R A C T

Introduction: Lichen simplex chronicus (LSC) is an eczematous skin condition characterized by thickened and 'lichenified' skin plaques. The involvement of psychological variables and transitory alleviation of pruritus following vigorous scratching appears to be critical in the development and maintenance of its course. **Methods:** The literature search process was carried out on various databases (PubMed, Web of Sciences, EMBASE, Cochrane Libraries, and Google Scholar) regarding risk factors and clinical overview of acute kidney injury. The search was performed using the terms: (1) " psychiatric factors" OR "psychological factors" OR "stress" AND (2) "lichen simplex chronicus". **Results:** Studies and literature have described the relationship between skin lesions exacerbation and the level of psychopathological conditions in response to stress. Pruritus or itch is the most prominent symptom of LSC, which seems to have a marked psychological component. **Conclusion:** Psychiatric factors have a role in both the onset and persistence of this form of neurodermatitis.

1. Introduction

Pruritus or itching is defined as an uncomfortable feeling on the skin which leads to a desire to scratch. Conditions that may cause pruritus are classified into systemic diseases, dermatological diseases, neurologic diseases, psychiatric disorders, and mixed pruritus.[1] Chronic pruritus, which lasts for 6 months or more, may impair patients' quality of life and lead to secondary lesions such as lichen simplex.[2,3] Lichen simplex chronicus (LSC) is a skin disorder characterized by hyperplasia of the epidermis and presents as thick, scaly, potentially hyperpigmented skin plaques (lichenification) due to excessive scratching. The color of the lesions ranges between yellow or deep reddish brown, which may become a leucodermic center with a darker zone bordering the lesion.[4,5] Lesions typically occur on areas within reach of the fingernails, such as the arms, neck, genitals, and scalp. LSC is mostly not life-threatening, but if left untreated, persistent scratching may lead to infection, changes in keratinocytes, and, rarely, malignant transformation of the affected tissues.[6] This study aimed to explore the literature related to psychological and psychiatric aspects related to chronic lichen simplex.

2. Methods

The literature search process was carried out on various databases (PubMed, Web of Sciences,

EMBASE, Cochrane Libraries, and Google Scholar) regarding risk factors and clinical overview of acute kidney injury. The search was performed using the terms: (1) " psychiatric factors" OR "psychological factors" OR "stress" AND (2) "lichen simplex chronicus". The literature is limited to clinical studies and published in English. The literature selection criteria are articles published in the form of original articles, an observational study about psychiatric factors related to the incidence of lichen simplex. This study was conducted in a timeframe from 2000-2023, and the main outcome was morbidity and mortality of angina pectoris. Meanwhile, the exclusion criteria were studies that were not related to angina pectoris, the absence of a control group, and duplication of publications. This study follows the preferred reporting items for systematic reviews and meta-analysis (PRISMA) recommendations.

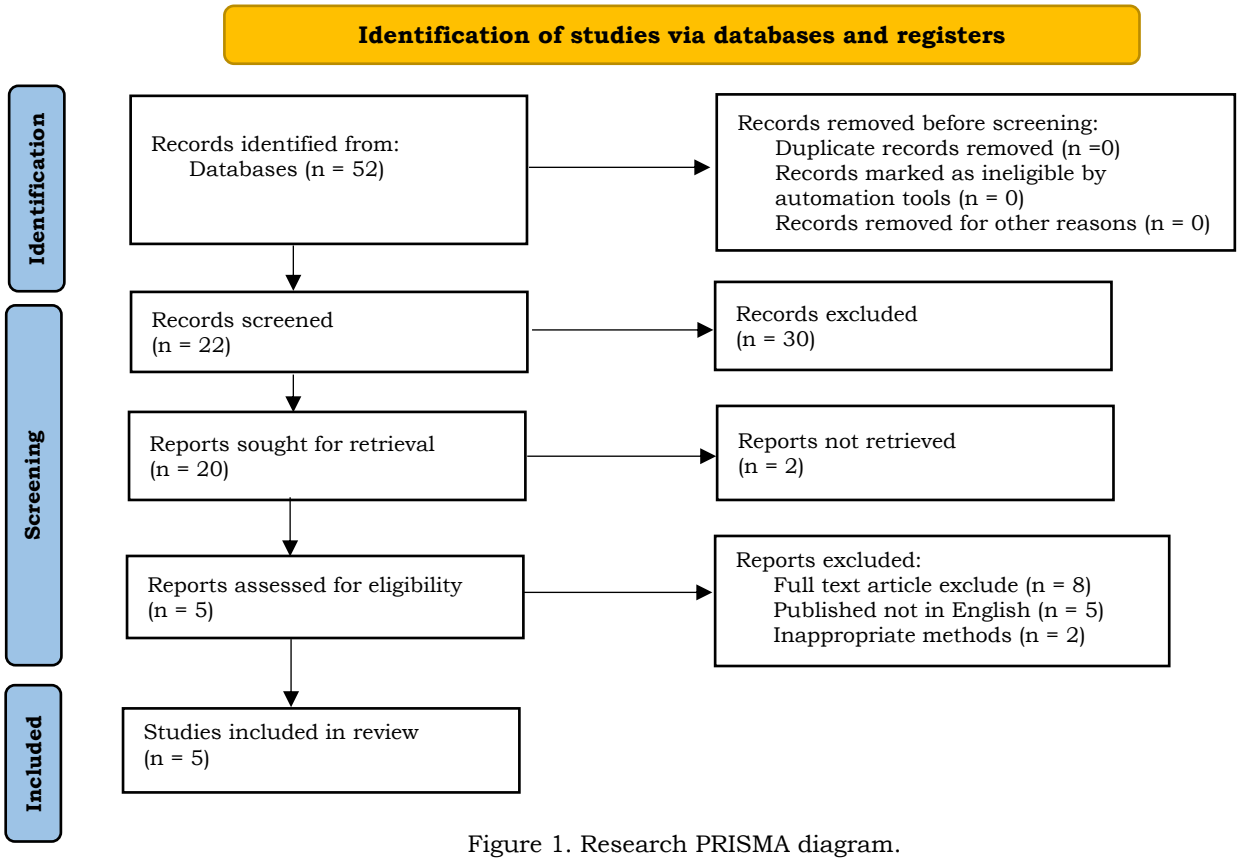

Figure 1. Research PRISMA diagram.

3. Results

A total of five studies were included in this systematic review. In the last phase of embryological development, the brain and skin grow from the same embryonic neuroectoderm. The main bridge symptom between these two organs is pruritus. The cingulate cortex is the primary region of the brain engaged in pruritus processing, and it is deactivated after scratching. Furthermore, the anterior cingulate cortex is involved in the control of emotional and cognitive activities, such as reward anticipation. Mood and motivation influence pruritus perception and processing, which may be explained by cingulate cortex physiology.[7,8]

LSC occurs in approximately 12% of the population and is most frequent between the age of 30 and 50, where there is presumably a rise in stress, with female to male ratio of 2:1. LSC is a common neurodermatitis disorder and has been associated with emotional factors. Psychological factors may have a role in the onset and persistence of this neurodermatitis. Emotional stress leads to irritation and the desire to

scratch, resulting in plaque that causes more stress, chronic pruritus, pigmentation changes of the skin, and possible spread.[9-11]

4. Discussion

Numerous studies have observed LSC and the role of psychological factors in triggering this condition. A previous study found depression, anxiety, aggression, and phobia to be significantly higher in the patient group compared to the control group. Another study showed LSC patients to have a higher rate of psychiatric comorbidity, depression, and anxiety levels. These conditions were also found to be closely related to symptom severity. Some studies found psychological differences between LSC patients and the control group, where negative emotional states were the main personality component in patients with LSC. However, no clear causal relationship can be made between personality traits and LSC.[12-15]

As a type of neurodermatitis, LSC needs a multi-disciplinary treatment that requires collaboration between dermatologists, psychiatrists, psychologists, and caregivers to educate patients regarding both the psychological and clinical aspects of the disease. Anti-inflammatory medications, moisturizers, and phototherapy treatment may be given to treat clinical features of LSC. The application of an occlusive dressing or bandage will help increase the effectiveness of topical treatment and protect the lesion from any possible traumas.[16-18]

However, the most important point of LSC treatment is to interrupt the pruritus scratching cycle by making it difficult to touch the lesions and decreasing the pleasure associated with scratching. This may be achieved with a psychodermatological approach through education, support, and behavioral therapy to help improve the patient's psychological ability to regulate the scratching process. Patients suffering from other psychiatric comorbidities should be seen by a psychologist or psychiatrist. Management of psychological aspects in LSC patients should be done to bring favorable outcomes.[19,20]

5. Conclusion

Studies and literature have described the relationship between skin disease and psychological variables and how increased levels of psychopathological conditions may have a role in skin lesions exacerbation of skin lesions. Pruritus or itch is the most prominent symptom of LSC, which seems to have a marked psychological component. The most important point of LSC management is to interrupt the pruritus scratching cycle. LSC is best managed with a psychodermatological approach, a combination of dermatologic treatment with psychotherapy, to prevent relapses.

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