

Lichen Simplex Chronicus

Lichen Simplex Chronicus (LSC) is a chronic dermatological condition characterized by localized thickening (lichenification) and inflammation of the skin, often in response to repetitive scratching or rubbing. This condition is considered a form of atopic dermatitis or eczema, frequently occurring in well-defined plaques. It typically results from a vicious cycle of itching and scratching, where itching leads to scratching, which then exacerbates the inflammation, thus perpetuating the cycle.

Epidemiology and Demographics

Lichen simplex chronicus most commonly affects individuals over the age of 20, with a higher prevalence in women. While the condition can occur at any age, it is most frequently observed in adults. Emotional stress and anxiety can significantly influence the onset and progression of the condition, acting as both triggers and exacerbating factors. The condition can also be linked to other underlying dermatological disorders, such as atopic dermatitis, although it may also occur independently.

Pathophysiology

The pathogenesis of lichen simplex chronicus is primarily driven by chronic mechanical irritation from repetitive scratching or rubbing, which leads to epidermal thickening and hyperkeratosis. The itch-scratch cycle is central to its development. Scratching in response to pruritus (itch) results in inflammatory mediators, including histamine, being released, which intensifies the itch. Over time, cutaneous hyperplasia (thickening of the skin) and lichenification occur, further compounding the problem.

Although histamine is involved in LSC, the condition is not primarily driven by histamine (which is common in other pruritic disorders like urticaria) but rather by neurogenic inflammation and skin barrier dysfunction, making standard antihistamines largely ineffective in treating the condition.

Clinical Features

Lichen simplex chronicus manifests as well-defined, thickened plaques with an erythematous base. These plaques are often linear, oval, or round, and typically have a raised texture due to hyperkeratosis and lichenification. Pruritus is the hallmark symptom and can range from mild to severe. The skin lesions are often exacerbated by external stimuli, such as wearing tight clothing or the physical irritation from scratching, which may increase the sensation of itching.

The most commonly affected sites include:

- Back of the neck
- Ankles
- Lower legs
- Upper thighs
- Forearms
- Genital areas

These lesions may appear as either single or multiple plaques, and are often associated with a history of chronic itching. Emotional stress and anxiety may worsen the condition, as they heighten the perception of itching.

Diagnosis

The diagnosis of lichen simplex chronicus is primarily clinical, based on the presence of well-demarcated, thickened plaques in areas prone to scratching. A biopsy may be performed to exclude other conditions, particularly psoriasis or fungal infections, which can present with similar clinical features. Histopathological examination typically reveals hyperkeratosis, acanthosis, dermal fibrosis, and perivascular inflammatory infiltrates. A key feature of the diagnosis is the absence of significant epidermal dysplasia or malignancy.

Treatment Options

The primary goal in managing lichen simplex chronicus is to break the itch-scratch cycle. Treatment focuses on reducing inflammation, improving the skin barrier, and alleviating pruritus. The following therapeutic approaches are commonly employed:

- **Topical Corticosteroids:** High-potency corticosteroids are the first-line treatment, especially for larger areas. These can help reduce inflammation and lichenification. Topical steroids are often applied once or twice daily, depending on the severity and location of the lesions.
- **Intralesional Corticosteroids:** For more localized lesions, intralesional corticosteroids (such as triamcinolone) may be injected directly into the lesion to reduce inflammation and promote healing.
- **Occlusive Dressings:** In cases where patients cannot prevent scratching or rubbing, the use of occlusive dressings (such as wet wraps) can help protect the affected areas from further irritation and can aid in healing. This is particularly helpful when the lesions are located in hard-to-reach areas.
- **Behavioral Therapy:** Since itching often becomes automatic or unconscious, behavioral interventions such as habit reversal therapy may be useful in helping patients become more aware of their scratching behavior and reduce it over time.

- **Phototherapy:** Narrowband UVB phototherapy has shown efficacy in treating lichen simplex chronicus, especially in patients with widespread involvement or those with resistance to topical therapies.
- **Systemic Medications:** For severe cases that do not respond to topical treatments, systemic therapies such as oral corticosteroids, immunosuppressants, or topical calcineurin inhibitors (e.g., tacrolimus) may be considered.

Symptomatic Relief

Since histamine does not primarily drive the pruritus in lichen simplex chronicus, oral antihistamines are generally ineffective for relieving itching. However, soothing agents such as emollients and colloidal oatmeal baths may help alleviate discomfort. Topical anesthetics such as pramoxine or lidocaine may also provide temporary relief from itching.

Prognosis

Lichen simplex chronicus is a chronic condition that can be challenging to treat. However, with proper management, it can be controlled, and the itch-scratch cycle can be broken. Remission is possible, but relapses are common, especially when triggers such as stress or skin irritation persist. Long-term management is often required to keep the condition under control and to prevent recurrence of lesions.

Conclusion

Lichen simplex chronicus is a condition that results from chronic rubbing and scratching, often in response to persistent itching. Management is primarily focused on halting the itch-scratch cycle through a combination of topical corticosteroids, intralesional steroids, behavioral therapy, and protective measures like occlusive dressings. While the condition can be difficult to treat, early intervention and comprehensive care can help reduce symptoms and prevent the development of more severe lesions.

References

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