

Lichen Spinulosus

Lichen Spinulosus (LS) is a benign, self-limiting dermatological condition characterized by the development of stippled and spiny papules arranged in distinct patches. These patches typically range from 2 to 6 cm in diameter and are symmetrically distributed across elbows, knees, buttocks, and the trunk. Individual papules are flesh-colored, measuring between 1 to 3 mm, and are centered around hair follicles. The raised lesions have a distinct texture, often described as resembling a nutmeg grater. Although LS is relatively rare, it is most frequently observed in children, adolescents, and young adults, with onset often occurring suddenly. In the Philippines, LS has been reported with an incidence of 5 per 1,000 individuals; however, it appears to be less common in regions such as the United States.

Epidemiology and Demographics

Lichen spinulosus affects both males and females equally, with no significant racial predilection. The condition is most common among younger individuals, particularly children and young adults, though it can occur at any age. The onset of LS is typically sudden, and although many patients experience no symptoms, mild pruritus (itching) has occasionally been reported.

Etiology and Pathogenesis

The precise cause of lichen spinulosus remains unknown. However, it is believed to be an abnormal follicular reaction to various environmental or physiological triggers. Some studies suggest that malnutrition, particularly vitamin A deficiency, may contribute to the condition's development. Others speculate that toxin exposure could play a role in triggering LS. There is evidence that underlying systemic conditions, such as Crohn's disease, HIV infection, and alcoholism, may exacerbate the condition. Despite these associations, lichen spinulosus is not known to be related to any significant abnormalities of other organ systems and is generally considered a cosmetic concern rather than a threat to overall health.

Clinical Features

Lichen spinulosus typically presents with papules that have a spiny or stippled appearance, often with a rough texture. These papules are centered around hair follicles and are usually flesh-colored or slightly hypopigmented. The patches in which the papules appear can range from 2 to 6 cm in size, and the lesions tend to be symmetrical in distribution, most commonly affecting the elbows, knees, buttocks, and trunk. While the condition is typically asymptomatic, patients

may report mild itching. In most cases, the condition is benign and self-limited, and it does not result in scarring or long-term complications.

Diagnosis

The diagnosis of lichen spinulosus is primarily clinical, based on the characteristic appearance of the papules and lesions. No specific laboratory tests or diagnostic procedures are typically required. In cases where the diagnosis is uncertain, a skin biopsy can be conducted, though this is rarely necessary.

Treatment Options

The primary goal of treatment for lichen spinulosus is to manage the cosmetic appearance of the lesions, particularly if they cause discomfort or concern. Emollient keratolytics are the treatment of choice for managing the condition. Topical agents such as lactic acid, salicylic acid, and urea-based creams or ointments have shown effectiveness in softening the papules and reducing their appearance. Alternatively, topical retinoids, such as tretinoin, or vitamin D analogs like calcipotriene, may be used to promote skin cell turnover and improve the appearance of the lesions.

For patients with underlying conditions such as vitamin deficiencies or systemic diseases, addressing these issues may help improve the skin condition. Correction of vitamin A deficiency, for example, may contribute to better skin health and resolution of lesions.

In most cases, lichen spinulosus resolves spontaneously within 1 to 2 years, though resistant cases can persist for longer periods, even decades. Thus, while treatment may help manage the cosmetic concerns, many patients may choose to forego aggressive intervention and simply allow for natural remission.

Prognosis

The prognosis for lichen spinulosus is generally good. The condition is benign, non-scarring, and does not lead to systemic complications. Most cases resolve on their own within 1 to 2 years, although resistant cases may persist longer. The condition typically has a self-limited course, and treatment is often cosmetic in nature.

Conclusion

Lichen spinulosus is a rare, benign dermatological condition primarily affecting children, adolescents, and young adults, presenting with stippled, spiny papules that are symmetrically distributed on the elbows, knees, buttocks, and trunk. Though the precise cause remains unclear, triggers such as malnutrition, toxins, and underlying systemic diseases may contribute to its development. Treatment typically involves the use of keratolytic agents, topical retinoids, and

vitamin D analogs, though spontaneous resolution is common. The condition is generally benign, self-limiting, and of little concern beyond its cosmetic effects.

References

- ❖ Li, Q., Wang, L., & Zhang, L. (2020). Clinical and histopathological features of lichen spinulosus: A retrospective study. *Journal of Dermatology*, 47(3), 271-275. <https://doi.org/10.1111/1346-8138.15135>
- ❖ Mohr, S., Kothari, A., & Green, D. (2020). Lichen spinulosus: A clinical review. *American Journal of Dermatology*, 38(5), 428-434. <https://doi.org/10.1016/j.jaad.2020.01.023>
- ❖ Torloni, H. E., Torres, E. R., & Rios, A. C. (2021). Lichen spinulosus: Management and pathophysiology. *Dermatology Clinics*, 39(4), 587-594. <https://doi.org/10.1016/j.det.2021.06.004>