Lichen Simplex

Appearance

Lichen simplex, sometimes called neurodermatitis, presents as a localised demarcated plaque, usually with scaling, excoriations and lichenification (increased skin markings and thickened skin) on the surface. The lesion is particularly itchy. Common sites are the calf, elbow, shin, behind the neck, and genitalia (vulva or scrotum)\(^1,2\). Plaques are usually greater than 5 cm in diameter\(^3\).

Aetiology

The common initial cause is eczema. The intense pruritus leads to persistent scratching and the area becomes lichenified (thick and leathery).

Other common causes include insect bites, scars (eg, traumatic, postherpetic/zoster) and venous insufficiency.
Epidemiology

The condition has been estimated to occur in 12% of the population\(^4\). The highest prevalence is mid-to-late adulthood, with a peak at 30-50 years. There is no race predilection, although people with dark skin tend to develop more marked pigmentary changes\(^5\). The condition is aggravated by periods of inactivity (presumably because there are no distractions to the itching) and stress\(^6\). One study found that people with lichen simplex chronicus had different personality profiles from those who did not\(^7\).

Differential diagnosis

Usually the unilateral nature of the lesion, on the shin or dorsum of the foot, coupled with the history of an enlarging, very itchy skin thickening are enough to make the diagnosis clinically.

However, there are some dermatological conditions that need to be excluded, including the dermatological manifestations of systemic diseases of the gastrointestinal, neurological and renal systems, as well as haematological conditions.

Dermatological conditions which need to be considered include:

- Acanthosis nigricans (not as thickened as lichen simplex and usually on the back of the neck).
- Acne keloidalis nuchae - (keloid papules and plaques on the occipital scalp occurring almost exclusively in Afro-American men).
- Alopecia mucinosa - papules and plaques, seen mainly in the young (<40 years), leading to hair loss.
- Amyloidosis (of the primary localised cutaneous type)
- Atopic dermatitis.
- Contact dermatitis.
- Cutaneous T-cell lymphoma.
- Dermatitis herpetiformis.
- Discoid (nummular) dermatitis, also known as discoid eczema. (Usually more lesions, scattered up a limb).
- Pretibial myxoedema (usually bilateral).
- Plaque psoriasis (more widespread than lichen simplex and bilateral).
- Seborrhoeic dermatitis (usually bilateral).
- Stasis dermatitis.
- Tinea cruris.

Investigations

Narrowing the list of potential causes may be helped by doing an IgE level and patch testing to exclude atopy and allergy, mycotic studies and biopsy for histopathology.

Primary care management

- Once the lesion is covered over and the patient cannot scratch it, it usually resolves. Resolution once a firm occlusive dressing is applied (and hopefully not removed by the patient, to scratch) is therefore diagnostic of lichen simplex.
- Itching may be relieved by using potent (occasionally very potent) steroids such as clobetasol or fluocinolone. Once the lesion has lost its lichenification and thickening, it becomes less itchy and the strong steroids only need to be used if itching recurs.
- Tar or ichthyol preparations have been shown to be beneficial for their anti-pruritic effect.
- Oral antihistamines may be required. A sedative antihistamine such as chlorphenamine may be first-line if sleep disturbance is a problem.
- Oral antibiotics may be required for swab-positive infections.
- Intraleosomal steroids such as triamcinolone may be considered in resistant cases.
- Other treatment options currently being investigated include topical doxepin and capsaicin, topical aspirin/dichloromethane, topical and oral immune modulators such as tacrolimus.\(^8, 9\). Topical tacrolimus may be particularly helpful for cases resistant to other treatment and promote long-lasting benefit.\(^10\).
- Gabapentin has also been used to good effect in cases resistant to topical treatments.\(^11\).

Prognosis

The condition often improves well with treatment but occasional cases may become persistent, especially on the genitalia.

Further reading & references

2. European guideline for the management of vulval conditions; International Union against Sexually Transmitted Infections, 2016
3. Lichen simplex chronicus on the back; Medline Plus, 2013

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