Learning & Development

CPD

Lichen planus and its management

In a recent letter to The Journal Christine Clark stated that pharmacists should play a major role in the management of both long- and short-term skin conditions but that research is needed to identify the types of dermatological problems commonly presented. In this article she describes lichen planus and how pharmacists can support sufferers.

Reflect on knowledge gaps

1. What is lichen planus?
2. How is it treated?
3. What advice can you give about managing the condition?

Before reading on, think about how this article may help you to do your job better.

Lichen planus (also known as lichen ruber or lichen ruber planus) — a non-infectious condition involving the skin or mucous membranes — affects up to 2 per cent of people. Although it is less well known than psoriasis and eczema, the impact of lichen planus can be significant. For example, it has been shown that the condition has a similar impact on the patient’s quality of life to that of psoriasis1 and awareness of the condition and the measures that can be used to ameliorate it is important for primary care health professionals.

Clinical presentation

Like psoriasis and eczema, lichen planus can present in a number of clinical variants. Typically, it appears as an itchy rash of small (3 to 5mm diameter), shiny, raised, reddish-purple (violaceous) papules. The papules are flat topped and can be covered in a net-like pattern of white streaks known as Wickham’s striae.

The rash appears suddenly, commonly affecting the inside of the wrists, ankles, elbows and lower back, although other parts of the body can also be affected. It can sometimes appear in lines where the skin has been scratched or cut. The rash usually lasts for several months and new lesions can break out while others are clearing. It can cause intense itching, particularly at night. Thickened (hypertrophic) lichen planus affects the shins, and ring-shaped (annular) lichen planus affects areas with creases in the skin, such as the armpits.

About 50 per cent of people with lichen planus affecting the skin also have oral involvement. It is also possible to have oral lichen planus — often diagnosed by dentists — without the skin being affected. The most frequently affected areas are the inside of the cheeks and the sides of the tongue. The affected mucosa is usually covered with painless white streaks in a lace- or fern-like pattern, but there is also an erosive form of the condition in which painful, persistent ulcers occur. Occasionally the gums are affected and redness and peeling occur. This is sometimes due to contact allergy to mercury in amalgam fillings. In such cases the lichen planus can resolve on replacing the fillings with a mercury-free alternative. (Contact allergy should be confirmed by patch testing.)

Genitals can also be affected by lichen planus. In men, it can present as purple-coloured or white ring-shaped patches on the penis. These are not usually itchy. In women, vulval lichen planus can range from white-streaked papules to severe erosions. Soreness, burning and rawness are common symptoms in addition to itching and pain on intercourse (dyspareunia).
between 30 and 60 years. No racial trends over two thirds of patients are aged loss can be permanent). can cause patchy scarring alopecia (ie, hair occasionally appears on the scalp where it the nail bed (onycholysis). Lichen planus thickening and separation of the nail from Characteristic changes include longitudinal undiagnosed vulvar lichen planus. Reports suggest that more than 50 per cent of women with oral lichen planus have undiagnosed vulvar lichen planus. It is estimated that 10 per cent of lichen planus cases involve the nails. Characteristic changes include longitudinal grooving and ridging, darkening, thickening and separation of the nail from the nail bed (onycholysis). Lichen planus occasionally appears on the scalp where it can cause patchy scarring alopecia (ie, hair loss can be permanent). Lichen planus can occur at any age but over two thirds of patients are aged between 30 and 60 years. No racial trends have been noted.

Causes
The cause is not well understood. Lichen planus is thought to be the result of a cell-mediated immune response to an induced antigenic change in epidermal cells of a genetically predisposed individual. Autocytotoxic CD8+ T lymphocytes in lesional skin cause a major histocompatibility class I antigen (lichen planus specific antigen; LPB). The exact nature of this antigen is unknown — it might be an autoactive peptide or an exogenous antigen such as a drug, contact allergen or virus. The activated T lymphocytes are believed to induce apoptosis of basal keratinocytes. An association between lichen planus and hepatitis C has been reported and the onset or worsening of the condition has been linked to stressful life events. Some patients also have a family history of lichen planus, which might indicate a genetic predisposition. The significance of these observations is not fully understood. Drug-induced rashes that look like lichen planus are described as lichenoid drug eruptions. They are usually pink or purple flat, scaly patches on the trunk. This is a rare side effect of a number of drugs including beta blockers, non-steroidal anti-inflammatory drugs, angiotensin-converting enzyme inhibitors, sulphonylureas, gold, antimalarial agents, penicillamine and thiazides. Some drugs, such as quinine and thiazides, have been implicated in causing actinic (sunlight-activated) lichen planus in sun-exposed sites. Lichenoid drug eruptions clear up slowly after the responsible medicine is discontinued.

Diagnosis
Lichen planus is diagnosed on the basis of examination findings and history. Because of the variable appearance of lichen planus it can sometimes be confused with planar warts, some types of eczema or psoriasis, tinea corporis or pityriasis rosea. For this reason many patients end up being referred to a dermatologist. The possibility of a lichenoid drug eruption also needs to be excluded. Sometimes a biopsy, under local anaesthetic, is taken to confirm the diagnosis (there are characteristic histological changes) and to exclude the malignancy.

Management
There is no cure for lichen planus and the objective of treatment is to suppress symptoms as much as possible until there is spontaneous remission — asymptomatic lichen planus requires no treatment. There are not many products licensed specifically for lichen planus and pharmacists are in a position to advise both patients and prescribers on what formulations are available. They are also in a position to provide advice on potential side effects of treatments and to give reassurance, for example, where the condition necessitates the use of a potent steroid on genitals.

Cutaneous lichen planus
Mild cases may need treatment for itching — sedating antihistamines can be taken at night to ease itching and the resulting sleep disturbance — and patients should also be given advice about measures to prevent further damage to inflamed skin, such as avoiding soap and harsh detergents. Moisturisers with a good lipid content (so not aqueous cream) may soothe the skin and also help to reduce itching. However, moderate lichen planus affecting the skin is usually treated with very potent or potent topical corticosteroids such as clobetasol and fluocinonide, which combats both itching and inflammation. As inflammation is suppressed the lesions will change colour and flatten. Patients should be advised that once the lesions have changed from red-purple to grey or brown and flattened there will be no further response to the topical corticosteroid and treatment should be discontinued. Such treatment may be needed for up to six weeks, even though it is with a high potency steroid. It should also be noted that topical steroids will not make any postinflammatory hyperpigmentation (brown or grey marks) disappear any faster — and patients should also be given advice about measures to prevent further damage to inflamed skin, such as avoiding soap and harsh detergents.

Potent topical corticosteroids are a safe and appropriate treatment for lichen planus, even when used on sensitive areas such as the genitals and flexures (eg, armpits). Postinflammatory hyperpigmentation is often an unavoidable effect of the disease; it is not caused by topical corticosteroids.

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to use and pharmacists should try to avoid inducing under-treatment. Sometimes products with antibacterials (eg, Trimovate) are prescribed but there does not seem to be a rationale for the antibiotic component.

Severe lichen planus (ie, extensive or painful and erosive disease and nail destruction) can be treated with oral corticosteroids (eg, oral prednisolone 20mg daily for two to six weeks, followed by a taper). Other treatments that have been tried (unlicensed indications) include the topical calcineurin inhibitors tacrolimus and pimecrolimus, ciclosporin, clobetasol, fluocinonide and fluocinolone acetonide, formulated in adhesive paste (1–6mg/kg/day for several months), acitretin (30mg/day for eight weeks), and methotrexate (1–15mg/week for up to 17 months). Treatment with ultraviolet light (UVB, narrow band UVB and PUVA [psoralen and UVA]) has also been used for extensive cutaneous disease.

**Oral lichen planus** Consensus guidelines published in 2005 recommend that first-line treatment for oral lichen planus should be with topical corticosteroids. Agents, such as betamethasone valerate, clobetasol, fluocinolone acetonide, fluocinonide and triamcinolone, formulated in adhesive paste have been widely used. However, in the UK, there is no longer a topical steroid proprietary product formulated in carmelllose gelatin paste (ie, Orabase). The available topical steroid products for use on the oral mucosa are hydrocortisone acetate (2.5%, 4%, 5%, 10% and 20%) and fluocinonide 0.05% spray or mouthrinse. The treatment should be used daily at bedtime for two or three weeks and then twice a week for a third month. Although data sheets usually advise against the use of such potent steroids on the genital area, dermatologists agree that lichen planus is one of the few conditions where it is not only appropriate, but in the case of vulvar disease, essential to avoid serious destructive damage. (The summary of product characteristics for Dermovate contraindicates its use for “perianal and genital pruritus” but dermatologists emphasise that genital lichen planus is more than “an itchy bottom”.)

Hydrocortisone acetate foam used rectally to treat inflammatory bowel disease can be used inside the vagina (unlicensed indication). Steroid suppositories have also been used vaginally. The treatment should be used daily at bedtime for two or three months and then twice a week. This helps to prevent vaginal adhesions.

One small study found that topical pimecrolimus was well tolerated and effective in most women with genital lichen planus.

**Outcomes**

In general, the prognosis for people with lichen planus is good. Without treatment, about 50 per cent of cases of cutaneous lichen planus clear within nine months. Most cases of cutaneous lichen planus resolve spontaneously within 18 months and usually do not recur. (It is reported that about one in six patients will experience a recurrence.) Oral disease and erosive disease of the vulva or penis, however, tend to be more persistent. Oral lichen planus tends to be more persistently painful and erosive disease and nail disease of the vulva or penis, however, tend to be more persistent. Oral lichen planus...
planus is reported to have an average duration of five years but, according to the British Dental Health Foundation, oral lichen planus generally never goes away. Residual skin marking (post-inflammatory hyperpigmentation) can persist for a long time and can be more marked in Asian or Afro-Caribbean skin. There is a small risk that long-standing erosive lichen planus can undergo cancerous changes resulting in oral or genital tumours.

**Role for pharmacists**

In addition to giving advice on treatment, pharmacists can:

- Explain what is known about lichen planus (see Panel 1) and encourage people to seek medical attention.
- Advise on other measures that might help, particularly for those with oral (see Panel 2) or genital lichen planus (see Panel 3).
- Signpost people to patient support groups.

**Signposting**

- Useful information can be downloaded from the UK Lichen Planus website (www.uklp.org.uk). The organisation can also provide contact with other people with lichen planus.
- Patients with scalp disease can also be signposted to Alopecia UK (www.alopeciaonline.org.uk), which has a network of local groups in the UK.

**Resources**

- Information leaflets on lichen planus are available from the British Association of Dermatologists and from Clinical Knowledge Summaries.
- Further reading
  - An article by Chuang T-Y, Stitle L. Lichen planus. (http://emedicine.medscape.com) gives further information on histological findings and doses of third-line agents used. Further details on oral lichen planus are also available at this site, in an article authored by Sugerman P and Porter SR.

**Panel 3: Advice for people with genital lichen planus**

- Wash with plain warm water (no soap or bubble bath) and use a soap substitute (eg, aqueous cream).
- Wash your hair over a basin to avoid contact of shampoo with affected skin.
- Apply a plain emollient or aqueous cream liberally before and after urinating.
- Aqueous cream is more soothing if chilled before application.
- Ice packs (or a bag of frozen peas) can be useful to reduce itching and swelling but should not be applied directly onto the skin (this can damage skin further).
- Use a good sexual lubricant (eg, Astroglide, V Gel and Sensilube). These products are mucus-like and moisturising.
- Women should wear stockings instead of tights.
- Go without underwear wherever possible.

Adapted from the UKLP patient information leaflet.

**Act: practice points**

Reading is only one way to undertake CPD and the Society will expect to see various approaches in a pharmacist’s CPD portfolio.

1. Review your counselling related to supplies of topical steroids.
2. Speak to your local dentist about oral lichen planus and his or her formulations of choice.
3. Are you taking appropriate action when supplying medicine for an unlicensed indication? Download “Fact sheet: five” the Royal Pharmaceutical Society legal and ethical advisory service’s guidance from the Society’s website.

**Evaluate**

For your work to be presented as CPD, you need to evaluate your reading and any other activities. What have you learnt? How has it added value to your practice? (Have you applied this learning or had any feedback?) What will you do now and how will this be achieved?

**Record**

Consider making this activity one of your nine CPD entries this year.