Answer to Dermacase *continued from page 1207*

5. Nail lichen planus

Lichen planus (LP) is a common inflammatory disorder of unknown etiology that can affect the skin, mucous membranes, hair, and nails. Nail LP can occur in association with disseminated disease or as an isolated finding. It typically manifests during the fifth and sixth decade of life, although individuals in any age group can be affected[1]; this includes children, in which the occurrence might be more frequent than previously recognized.[2]

Nail LP can affect 1, several, or all 20 nails. Fingernails are more commonly affected than toenails.[1] A variety of clinical presentations exist, depending on the location of the lichenoid inflammatory infiltrate. The nail matrix, nail bed, hyponychium, and proximal nail fold can all be affected to varying degrees. Involvement of the nail matrix can produce onychorrhexis, trachyonychia, and, in severe cases, pterygium and anonychia. Onychorrhexis is the thinning, longitudinal ridging, and splitting of the nail plate and is the most common finding of nail LP.[1,3] Trachyonychia refers to thin, dull, opalescent, brittle, and longitudinally ridged nails that have a rough sandpaper appearance.[1] Destruction of the nail matrix from progressive scarring produces pterygium and anonychia, which are irreversible. Pterygium is the most specific finding for nail LP, and refers to a V-shaped extension of the proximal nail fold that fuses with the nail bed in areas of associated thinning and eventual absence of the nail plate.[3,4] Anonychia is the complete absence of a nail. In addition to nail matrix disease, nail LP can also affect the nail bed and hyponychium, resulting in onycholysis (separation or lifting of nail plate from nail bed) and subungual hyperkeratosis (excessive proliferation of nail bed and hyponychium).

Cutaneous LP typically appears as small, pruritic, flat-topped, violaceous, polygonal papules located on the flexor aspects of the wrists and ankles, dorsa of the hands, trunk, shins, and glans penis. Mucosal LP can present as either white reticulated streaks (Wickham striae) or erythematous erosions or ulcerations on the buccal mucosa, gingiva, tongue, and lips. Lichen planus affecting the scalp is called lichen planopilaris. It is characterized by small follicular-based papules and perifollicular erythema with progression to scarring; permanent hair loss can result.[1]

Diagnosis

Nail LP is most often diagnosed clinically. The coexistence of LP elsewhere on the body (skin, mucous membranes, or hair) facilitates diagnosis. When nail LP occurs as an isolated finding, the diagnosis can be much more difficult, as many of its features are nonspecific and common to other diseases (eg, psoriasis).[4]

The differential diagnosis varies depending on which clinical finding is predominant. Onychorrhexis, although typical of nail LP, can be linked to various other causes, including trauma, impaired vascular supply, tumours compressing the nail matrix, and rheumatoid arthritis.[1,3] In addition, mild onychorrhexis is a common finding in the elderly.[3] Trachyonychia can also occur with psoriasis, alopecia areata, and atopic dermatitis.[1,3] Psoriasis can be differentiated from LP by the presence of nail pitting, a yellow-brown "oil drop" discolouration of the nails, and associated cutaneous, scalp, or joint findings. Alopecia areata can also be differentiated from LP by the presence of nail pitting as well as associated patches of hair loss. Although pterygium is almost pathognomonic for nail LP, other causes do exist, including trauma, peripheral vascular disease, radiotherapy, Raynaud phenomenon, and immunobullous disease.[3] Onycholysis and subungual hyperkeratosis are features of both psoriasis and onychomycosis. Onychomycosis can be differentiated from LP by the presence of yellow nail discolouration and increased subungual debris, along with a positive fungal culture.

In cases where diagnosis is uncertain, a nail biopsy should be performed. If onychomycosis is suspected, nail clippings should be sent for potassium hydroxide examination and fungal culture. A thorough physical examination of the skin, mucous membranes, and hair for associated findings can also help in making the correct diagnosis.

Treatment

Although notoriously resistant to treatment, all cases of nail LP should be managed aggressively to prevent the development of permanent nail deformity or loss from nail matrix scarring. Ultrapotent topical corticosteroids remain first-line therapy for nail LP, although it is not uncommon for the condition to recur once therapy is discontinued. For cases involving a few nails only, intralesional injections of triamcinolone acetonide can be administered into the proximal nail fold of affected nails.[5] For more extensive cases, intramuscular injections of triamcinolone acetonide or low-dose, alternate-day oral prednisone can be administered.[4,6] If corticosteroids are unsuccessful in treating nail LP, other therapeutic options include oral retinoids and topical psoralen–ultraviolet A (PUVA) photochemotherapy.[7]

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Competing interests
None declared

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