Skin Diseases Refresher

Linear keratosis

R. C. PILSWORTH* AND D. KNOTTENBELT

*Greenwood Ellis and Partners, 166 High Street, Newmarket, Suffolk CB8 9WS; and Philip Leverhulme Hospital, University of Liverpool, Leahurst, Neston, Wirral CH64 7TE, UK.

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Disease profile

This is a relatively common, but poorly understood condition. Owners are often worried about the condition and may need to be properly guided as to the implications and prognosis. It affects all ages and types of horses but the Quarter Horse and Thoroughbred are probably over represented. It is rarely encountered in pony breeds.

Clinical signs

Small areas with hyperkeratosis but without hair loss are usually the first indication of the condition. At this stage the disease can resemble ringworm (Fig 1). Gradually the hyperkeratosis becomes less prominent and alopecia becomes more obvious (Fig 2).

The lesions often develop in a linear manner perpendicular to the ground surface and can occur at any site- the neck, quarters and chest are often most affected (Fig 3). Apart from the visible skin changes the condition is virtually asymptomatic, there is no pruritus, pain or evidence of local inflammation.

Investigations

- Skin scraping (to eliminate dermatophytosis.)
- Skin biopsy.

Differential diagnosis

- Early dermatophytosis.
- Dermatophilosis.
- Iatrogenic blistering from topically applied solutions.
- Occult sarcoid
- Alopecia following scalding from wound discharge (q.v.) or over-strength chemical applications.

Diagnostic confirmation

Skin biopsy is distinctive: regular or irregular epidermal hyperplasia in association with hyperkeratosis is easily

Fig 1: The typical, vertically oriented, extending line of the lesions in linear keratosis.

Fig 2: In this example, the keratosis in the more established lesions (proximal) has waned, and alopecia predominates at these sites.
recognised. There is often an associated lymphocytic mural folliculitis resulting in eventual alopecia.

Negative skin scraping.

Clinical recognition of linear, vertically extending alopecia, the ‘dripping candle wax’ lesion (Figs 1–3).

Fig 3: In this horse, all of the lesions still show hyperkeratosis as the predominant sign. This can eventually be expected to lead to permanent alopecia.

Fig 4: In this slightly atypical case, confirmed by biopsy, the lesions are much more widespread than usual, and not linear in arrangement. These lesions, as is usual with the condition, were self-limiting, nonprogressive and permanent.

Management

There is no treatment and no need for treatment. The owner’s fears should be allayed but the condition is permanent and slightly progressive. Not to be confused with whip marks in post race inspections.