

Large

WHAT IS YOUR DIAGNOSIS?

Answer to C&T No. 5959

Patchy alopecia in a mature horse

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C&T No. 5971



An 18-year-old Arabian gelding presented for non-pruritic, patchy areas of alopecia. Lesions initially occurred on the ventral neck, then progressed to involve the trunk, limbs, rump and face. There were no other dermatological abnormalities noted; the horse was systemically well.

Answer: Alopecia areata

How would you investigate the patient?

Skin scrapes, hair pluck, skin biopsy would all be possible, although the lesions are so characteristic that we made a presumptive diagnosis on the basis of the gross lesions.

Treatment

The patient was treated with 0.584% hydrocortisone aceponate topical spray (Cortavance®.) This was applied daily to the affected areas for 14 days, then reduced to every other day for a further two weeks. After four weeks of treatment, new hair re-growth was noted in

affected areas, in particular the white hairs of the star on the face. The owner was instructed to continue Cortavance® on an as-needed basis.

Treatment of alopecia areata may not be required due to the cosmetic nature of the disease. Immunosuppressive medications may cause adverse side effects that outweigh their clinical benefits. Other treatment options include oral prednisolone, 0.1% topical tacrolimus ointment, topical triamcinolone spray and 2% minoxidil solution. Spontaneous hair re-growth may occur in some cases; when hair re-grows it is often lighter and finer than normal.

I would like to acknowledge Dr. Janet Littlewood, my mentor for this case.

ALOPECIA AREATA

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Alopecia Areata is an uncommon auto-immune dermatosis that occurs rarely in horses (and also dogs and humans). It is characterised by non-inflammatory alopecia, most typically with one to small numbers of 2-4cm well-demarcated circular areas. Less commonly larger regions or numerous lesions can occur. The face, neck and trunk are commonly affected sites. Leukotrichia (loss of hair pigment) may occur initially or rarely dominate.

A key feature that helps differentiate from other causes of alopecia is that the skin surface in affected areas looks normal; there is an absence of scaling, crusting, swelling, erythema or other skin changes. This makes sense looking at the pathogenesis, as auto-antibodies are produced against components of the hair follicle, including actively growing anagen bulbs, resulting in the resorption of follicles, without furunculosis (follicle rupture) and the associated intense inflammation that follicular pathogens more typically produce.

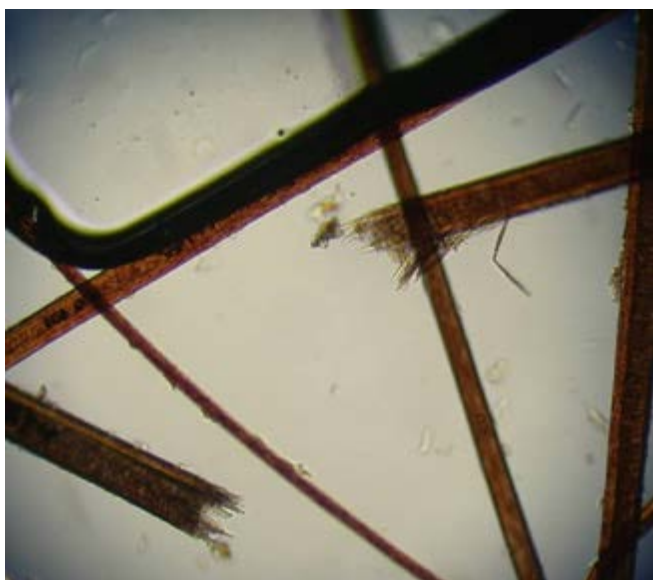
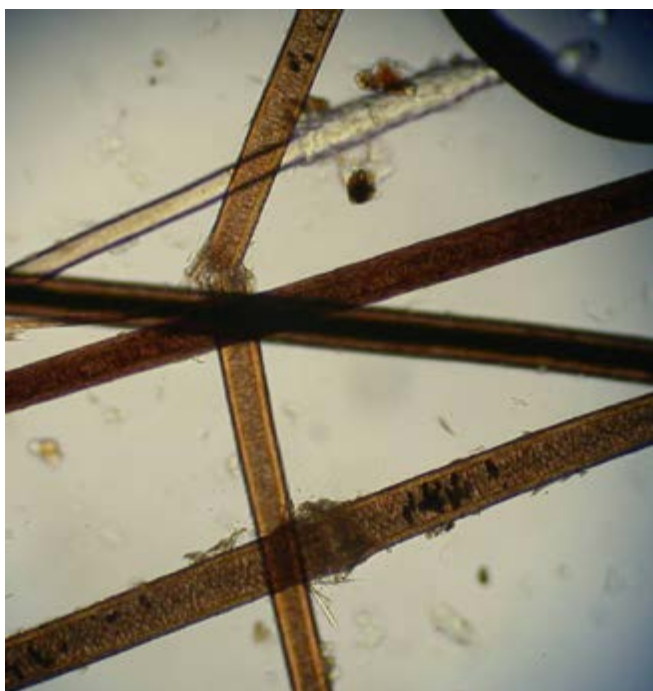


Figure 1. Localised circular to oval well-demarcated alopecia in a horse due to alopecia areata, with normal skin appearance, and some central hair regrowth.

There are several more common differentials to consider for this presentation, including follicular pathogens (staph bacteria, dermatophilus, dermatophytes), occult sarcoid, and local trauma (injection site reactions, trichorrhexis nodosa). Although other skin changes including scaling and crusting are mostly present with these causes of alopecia, occasionally the skin can appear normal.

Other less common considerations include interruptions to follicular cycling (anagen or telogen defluxion), and demodex mites (very rare in horses).

Some simple surface skin tests can help support a diagnosis of alopecia areata and exclude other more common causes of alopecia. Tape impressions should reveal an absence of inflammatory cells, fungal spores/hyphae and bacteria (normal skin surface bacteria are very sparse and rarely apparent on oil-immersion fields). A trichogram can be useful, with abnormally tapered, frayed or fractured hair shafts typical; and again the absence of fungal elements or demodex mites is important.



Deep skin scrapings (or potentially the new squeeze tape described for canine demodicosis) would exclude very rare cases of demodicosis. Biopsies provide firm diagnosis, revealing tightly follicular (peribulbar) lymphocytic infiltrates (often referred to as "a swarm of bees"... that pathologist might have been a bee keeper!) However, these changes are transient, and multiple samples from early lesions may be required, although biopsies also provide evidence for exclusion of infectious differentials (again, multiple samples of a range of lesions provide more reliable information) and occult sarcoid.

No reliable treatments are described for alopecia areata in horses, humans or dogs. Spontaneous resolution is well-reported (within months to years). Topical treatments are the mainstay, with glucocorticoids, skin irritants (inducing contact reactions), or less often tacrolimus or minoxidil potentially helpful, but some cases remain refractory to a range of treatments. Intralesional or occasionally systemic glucocorticoids have also been utilised, without consistent results. With cosmetic appearance important to many performance horses, the pressure may be on to help find a solution; the key may be quick treatment with a potent topical steroid such as Cortavance (off-label in horses) or Mometasone (e.g. Elocon lotion) – assuming you are pretty confident at excluding infectious differentials which could get worse—warning owners that response is variable, so you can claim success even if there is spontaneous resolution!

Figures 2 & 3. Trichogram from edges of lesion on horse from pic 1. Localised weak areas distally on otherwise normal hair shafts, resulting in fraying, bending (Figure 2) and fracture (Figure 3) of hairs.

Biopsy is required for definitive diagnosis of alopecia areata, but distally narrowed ('exclamation point') or weak, breaking of hairshafts on trichogram, with the absence of infectious causes, is supportive of this diagnosis.

SEEN AN INTRIGUING CASE LATELY? OR HAVE AN INTERESTING PHOTO?

We welcome any images and content from our readers that would be suitable for our 'What's YOUR diagnosis?' column.

Please send them to: cve.marketing@sydney.edu.au and earn a voucher◆

