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Managing urticaria

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Of all the domesticated species of animals the horse is perhaps the most prone to developing urticaria. In the majority of cases horses may show only one or 2 episodes of urticarial eruptions, which respond to symptomatic therapy or subside of their own accord, but in some animals chronic or recurrent urticaria may occur. In the former situation detailed investigations are not indicated and the causal factors are rarely identified with certainty. Horses which show persistent (>6 weeks' duration) or recurrent (>3) episodes of urticaria should be investigated, in an attempt to identify the underlying trigger factors. This should include a detailed drug history, elimination diet and specific allergen testing.

Potential causes of urticaria in the horse include:

- Drugs
- Food or food additives
- Environmental allergens
- Transfusion reactions
- Infections: parasitic, bacterial, fungal, viral
- Insects: papular urticaria
- Systemic diseases:
  - Cutaneous vasculitis (purpura haemorrhagica)
  - Dermatographism
  - Cholinergic urticaria
  - Cold urticaria
  - Exercise induced urticaria
  - Pressure urticaria
- Chronic idiopathic urticaria

Drug reactions in the horse are commonly urticarial in nature. In a review of adverse cutaneous drug eruptions almost half of the cases presented with urticaria or lesions of erythema multiforme with an urticarial component (Scott and Miller 1997).

Although food reactions are commonly suspected by owners to be implicated in urticarial reactions in horses, there is a lack of good case reports in the literature. A series of 8 horses was mentioned in a review (Walton 1970), but detailed case information and diagnostic criteria was not included. There are other anecdotal reports from respected dermatologists in workshop reports and a case of food eruption of exercise-induced cholinergic urticaria (Logas et al. 1992) and a report of telogen defluxion in a horse due to hypersensitivity implicating a food supplement (Jubb and Graydon 2007), but this latter case showed neither urticaria, nor pruritus. However, in spite of inclusion in standard texts, adverse cutaneous food reactions (ACFRs) in the horse are rare.

It is now well accepted that atopic dermatitis occurs in the horse as well as in the dog and cat. Cases may present with either or both urticarial lesions and pruritus. In a series of 24 atopic horses referred to the author, 10 presented with recurrent or chronic urticaria, 4 of them with urticaria alone and 6 with pruritus and urticaria. Intradermal testing in these cases is extremely useful in identification of causal allergens (Scott and Miller 2003; Rendle et al. 2010) and formulation of a management regime. Hypersensitivity responses can occur to many environmental allergens, both indoor - dust mite and storage mite species, dusts, moulds, smuts, feathers, wool and outdoor - tree, grass and weed pollens. In the UK, at least, indoor allergens appear to be particularly important. Little research has been undertaken but clinical experience would suggest that, at least for indoor allergens, percutaneous exposure is important.

Where a definitive cause of urticaria is identified, avoidance of the causal trigger factors is indicated. If a drug eruption is suspected, drug therapy should be discontinued. If continuing treatment for an underlying disease is essential, then unrelated drugs should be substituted. Most cases resolve with removal of the suspected agent, considerable improvement seen in 7–14 days, but may take up to 6–10 weeks. Definitive identification of the causal agent requires rechallenge, but this may be hazardous and is not recommended. Implicated drugs and those closely related should be avoided in the future.

In horses with atopic dermatitis, management changes directed towards reducing allergen exposure can be very helpful in treating such cases. Allergen avoidance measures that may be directed towards reducing allergen exposure can be very helpful in treating such cases. Allergen avoidance measures that may be employed include maintaining horses at pasture and dust-free management in the stable.

Where allergen avoidance measures are unsuccessful or impractical, allergen-specific immunotherapy (ASIT) can be attempted. Immunotherapy has been shown to be helpful in equine patients (Rosencrantz et al. 1998), but placebo-controlled clinical trials are lacking. However a similar success rate is reported anecdotally as for small companion animals.

For initial treatment of cases of urticaria, which may be single episodes and not recur, and for those cases of atopic dermatitis that fail to respond to allergen avoidance measures or ASIT, symptomatic control is indicated. The response to glucocorticoids is usually prompt and an initial injection of dexamethasone soluble at a dose rate of 0.01–0.02 mg/kg bwt may secure complete resolution. For cases requiring ongoing therapy oral prednisolone at an initial dose rate of 1 mg/kg bwt/day, reducing to alternate day dosing when lesions resolve, and ongoing reduction to the lowest possible alternate day maintenance dose is the author’s preference. The risk of adverse effects from this treatment regime is very low. Antihistamines may be useful (hydroxyzine 1–2mg/kg bwt b.i.d. or ti.d., diphenhydramine 1–2 mg/kg bwt b.i.d. or ti.d., chlorpheniramine 0.25–0.5 mg/kg bwt b.i.d., cetirizine 0.2–0.4 mg/kg bwt b.i.d.).
Other adjunctive therapies which may be of benefit in atopic horses include bathing with soothing/emollient shampoos and topical application of hydrocortisone aceponate (Cortavance) spray, which has the advantage of no systemic absorption of glucocorticoid.

References