

Feline Herpesvirus-1 as a differential diagnosis for feline facial pruritus



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Figure 1. Feline herpetic facial dermatitis



Figure 2. The patient post treatment

Feline patients with allergic disease can present clinically with a reaction pattern known as head and neck pruritus. This severe and most frustrating of feline reaction patterns can result in dramatic mutilation and is often refractory to numerous treatments. A typical list of differential diagnoses includes: parasites (i.e. *Notoedres*, *Demodex gatoi*, *Otodectes*) and allergic disease (Flea allergy, food allergy and atopy). Often overlooked is the possibility of feline herpesvirus ulcerative dermatitis. Feline Herpesvirus-1 (FHV-1) is most commonly associated with upper-respiratory tract disease, including rhinotracheitis and keratoconjunctivitis. Following primary infection, it is harbored in the trigeminal ganglion in latency. Following immunosuppression or stress, viral replication can reactivate and result in recurrence.

This recurrence may present as a striking eosinophilic dermatitis of the face and/or nasal planum (occasionally on the extremities) that is easily mistaken by both clinicians and histopathologists for allergic eosinophilic dermatitis or eosinophilic granuloma complex. While the literature indicates pruritus may be moderate to absent (Gross *et al.*, 2005), some cases have marked pruritus and resulting self-mutilation which compounds the clinical confusion with allergic pruritus. This commonly results in a fruitless diagnostic work-up for allergic disease as well as ineffectual and possibly aggravating immunosuppressive therapeutics.

Histopathology of biopsy specimens reveals a necrotizing eosinophilic dermatitis. Intranuclear viral inclusions may not be present or may be easily missed by the histopathologist. Both PCR and immunohistochemical techniques have been investigated and validated as screening tools for herpetic dermatitis (Hargis *et al.*, 1999, Persico *et al.*, 2011). However, the discovery of the safe and effective use of the human antiviral, Famciclovir, has revolutionized our ability to both diagnose and treat this disease (Thomasy *et al.*, 2006, Malik *et al.*, 2009, Thomasy *et al.*, 2011). The author recommends a 2 to 3 week empirical course of Famciclovir as a diagnostic rule out in cases of feline facial dermatitis and pruritus where herpes may be suspected (125 mg PO BID). In the author's experience, response is noted in many cases of nebulous feline facial excoriation and dermatitis that were previously misdiagnosed as allergic in etiology and treated unsuccessfully with steroids and/or cyclosporine. The veterinary practitioner should be mindful of this insidious differential diagnosis when confronted with refractory feline facial dermatitis cases.

REFERENCES

Gross TL *et al.*, Feline herpesvirus ulcerative dermatitis. In: *Skin Diseases of the Dog and Cat. Clinical and Histopathologic Diagnosis*, 2nd edition. Oxford: Blackwell Science, 124-126, 2005.

Hargis A.M. *et al.* Ulcerative facial and nasal dermatitis and stomatitis in cats associated with feline herpesvirus-1. *Veterinary Dermatology*. 10: 267-74, 1999.

Malik R *et al.* Treatment of feline herpesvirus-1 associated disease in cats with famciclovir and related drugs. *J Feline Med Surg*. 11(1): 40-48, 2009.

Persico P *et al.* Detection of feline herpes virus 1 via polymerase chain reaction and immunohistochemistry in cats with ulcerative facial dermatitis, eosinophilic granuloma complex reaction patterns and mosquito bite hypersensitivity. *Veterinary Dermatology*. 22: 521-527, 2011.

Thomasy SM *et al.*, Safety and efficacy of famciclovir in cats infected with feline herpesvirus 1. *Veterinary Ophthalmology*. 6:418, 2006.

Thomasy SM *et al.* Evaluation of orally administered famciclovir in cats experimentally infected with feline herpesvirus type-1. *Am J Vet Res*. 72(1): 85-95, 2011.

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