

# DERMATOLOGY PEARLS

*Provided by Dr. Kimberly Coyner, DVM DACVD  
Dermatology Clinic for Animals of Las Vegas  
5231 W. Charleston Blvd.  
Las Vegas, NV 89146  
(702) 821-1002  
[www.dermvetvegas.com](http://www.dermvetvegas.com)*

## PEARL OF THE MONTH: DEMODEX UPDATE

1. *Demodex injai* is a fairly newly described species of demodex mite in dogs. This large mite is 1.5 – 2x the length of *D. canis*, and most commonly is associated with a greasy, pruritic, erythematous dorsal truncal dermatitis, especially in Fox terriers. *D. injai* have also been described as the cause for intense facial pruritus and erythema (+/- scaling or alopecia) in a case series of 9 Shih tzu dogs. Mites may be few in number, so it is important to perform multiple deep scrapings from the affected skin and scan the entire slide under 4X for diagnosis. In the case series of Shih tzus with facial involvement, sedation was required for skin scrapings, and mites were sometimes only found on trichography of hair plucks from affected skin. Concurrent secondary bacterial and Malassezia infections are common. Treatment options for *D. injai* are the same as for *D. canis*, including daily oral ivermectin 0.4-0.6mg/kg, daily oral milbemycin 1-2mg/kg, and amitraz dips or spot on treatment every 2 weeks. Treatment is continued until one month beyond a negative skin scraping.
2. In the past 1-2 years, Promeris (amitraz and metaflumizone spot on) has been approved for the treatment of canine demodicosis, and is typically used every 2 weeks until one month beyond a negative skin scraping. It appears to be most helpful in juvenile-onset cases without concurrent disease. However there have been more than 22 documented cases of drug-induced pemphigus foliaceus in dogs treated with Promeris. Crusting skin lesions and pustules typically begin at the site of administration and then spread outward and downward, and in some cases generalized crusting skin lesions have developed. Most cases have required immunosuppressive medication to achieve remission, and in some cases the immunosuppressive therapy could not be discontinued without relapse of lesions. If any crusting lesions are noted after Promeris administration, then the drug should be discontinued immediately, and if crusting persists/spreads, then Pfizer should be notified. Biopsy of intact pustules and crusted lesions with dermatopathology evaluation is required for diagnosis.
3. Advantage Multi (moxidectin and imidacloprid) applied once monthly is licensed in Europe and Canada for the treatment of canine demodicosis, but treatment results have been less than satisfactory when used by US dermatologists. Two recent studies evaluated Advantage Multi when used every 1-2 weeks for the treatment of canine generalized demodicosis. In one study, every 2 week treatment with Advantage Multi was effective in 23/52 juvenile-onset dogs, and in 3/20 adult-onset dogs, with a mean treatment time of 12.5 weeks. More mildly affected dogs had a significantly improved response rate (71%) compared to severely affected cases (24% response). In the other case study, 50 demodectic dogs were treated with either daily oral ivermectin (positive control), or Advantage Multi applied every 1, 2 or 4 weeks. Results showed that after 4 months of administration, live adult demodex mite count was reduced by 89% for dogs treated with weekly Advantage Multi (number of mites found on final skin scrapings ranged from 0-164), and by 98% for dogs treated with daily oral ivermectin (number of mites found on final skin scrapings ranged from 0-5). Conversely, dogs treated with monthly or q 2 week Advantage Multi for 4 months had only a 45% and 64% decrease in live mite counts respectively.