

Interpretive Summary

Familial Canine Dermatomyositis in a Shetland sheepdog

Case Description: An eight month old, FS, Shetland sheepdog presented with bilateral patches of alopecia, erythema, scaling and crusting periocularly. The owners reported noting these changes for one to two months. Multiple skin scrapings were performed and found to be negative. A dermatophyte culture was obtained, and the dog was placed on Cefalexin and Vitamin E pending culture results. Lab testing showed no abnormalities. Within two weeks the scales had decreased slightly, the erythema was gone, but the periocular alopecia had spread. The dermatophyte culture was negative. Skin biopsies were obtained and submitted for dermatohistopathology. The diagnosis of dermatomyositis was made based on microscopic findings. Treatment was begun using pentoxifylline, vitamin E, and a fatty acid supplement.

Outcome: Within two months, the skin lesions showed great improvement. Hair began to grow through the alopecic areas, which were displaying hyperpigmentation and scarring. Scaling and crusting had diminished. Pentoxifylline was continued at the initial dose for three months. At the three-month recheck, there was slight improvement noted. The pentoxifylline was decreased to a BID schedule for two months, followed by two months of once a day treatment, and two final months of every other day administration. Scarring around the eyes persisted.

Implications/Applications: This dog displayed fairly classic signs of familial canine dermatomyositis, an inherited inflammatory disorder of skin, muscles, and occasionally blood vessels. An immune mediated mechanism is postulated to initiate this disease. The dog was vaccinated three times as a puppy with a DA2PP combination product, and a killed rabies vaccine was given at 16 weeks of age. It is unknown if these vaccines initiated the syndrome. This puppy was six months old when the owners initially noticed the lesions, which corresponds to the upper age when the disease usually manifests itself. This dog had no muscle involvement. It was not necessary to use prednisone to control lesions in this dog. The scarring that persisted in this dog is common. Lesions regressed utilizing pentoxifylline. Its predominant activity is the reduction of blood viscosity and increased capillary blood flow. In addition, pentoxifylline is also characterized as having immunomodulatory effects, perhaps explaining why it has efficacy in dermatomyositis.

References:

- Nesbitt, GH; Ackerman, LJ: *Canine & Feline Dermatology*, Veterinary Learning Systems, 1998, 498pp.
- Rees CA, Boothe,DM, Therapeutic Response to Pentoxifylline and its Active Metabolites in Dogs with Familial Canine Dermatomyositis. *Veterinary Therapy* 4(3): 234-241, 2003.