Dermatomyositis

**Also Known As:** A form of ischemic dermatopathy

**Transmission or Cause:** Hereditary, immune-mediated condition of the skin and muscles in dogs and humans.

**Affected Animals:** Hereditary inflammatory condition in young Shelties, Collies, and Beauceron shepherds. Condition can occur in other species of dogs as well.

**Clinical Signs:** Usually begin prior to 6 months of age. Common skin lesions include hair loss, redness, scaling, crust, and scarring. More severe cases can also involve skin erosions as well as ulcers. Typically involved areas include the face (eyes, muzzle, nasal planum), feet, tips of ears and tail, oral cavity, and footpads. Signs of muscle involvement can be variable. Some dogs may be unaffected, have jaw or facial muscle atrophy, or have generalized muscle atrophy. Some dogs may become weak, have trouble walking and swallowing, and some may even develop megaesophagus, which can cause regurgitation.

**Diagnosis:** Dermatomyositis is diagnosed based on clinical signs, biopsy of skin and/or muscle, and occasionally specialized testing of electrical muscle function (EMG). The most common differential diagnoses include: skin infections such as demodicosis, staphylococcal infection, dermatophytosis (ringworm), or other immune mediated diseases such as vasculitis, discoid lupus erythematosus, and epidermolysis bullosa simplex. Common skin biopsy findings include: Degeneration of the basal layer of skin cells, scarring/fibrosis, and atrophy of hair follicles. Common findings from muscle biopsy specimens include: Variable inflammation, muscle fiber necrosis and atrophy. EMG abnormalities may include: Positive sharp waves, fibrillation potentials, and high-frequency discharges.

**Treatment:** Mechanical trauma and prolonged sun exposure can worsen the lesions of dermatomyositis. Medical management of dermatomyositis will vary with the severity of the lesions. Secondary bacterial or yeast skin infections should be treated with appropriate antimicrobials. Mild to moderate cases may be managed with anti-inflammatory and immunomodulatory medications such as pentoxifylline, oral fatty acids, vitamin E, and/or a combination of niacinamide and tetracycline/doxycycline. More severe cases require immunosuppressive treatment with varying combinations of steroids, azathioprine, and cyclosporine.

**Prognosis:** The prognosis is variable depending on the severity of the disease. Some mild cases will spontaneously resolve. More significant cases may require lifelong medical management and result in significant scarring. Severe cases of dermatomyositis with muscle involvement may result in a poor prognosis for long-term survival. Affected dogs should not be bred.