

DERMATOMYOSITIS

(INFLAMMATION OF THE SKIN AND MUSCLES)

BASICS

OVERVIEW

- “Dermatomyositis” is an inherited inflammatory disease of the skin, muscles, and blood vessels that develops in young collies, Shetland sheepdogs, and their crossbreeds
- Similar signs have been reported in other breeds, such as the Beauceron shepherd, Welsh corgi, Lakeland terrier, chow chow, German shepherd dog, and Kuvasz, as well as individual dogs; however, the condition in these dogs currently is classified as “ischemic dermatopathy” and not “dermatomyositis” as previously reported

GENETICS

- Collies and Shetland sheepdogs—studies suggest that dermatomyositis is inherited in an autosomal dominant manner, with variable expression

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs

Breed Predispositions

- Collies, Shetland sheepdogs, and their crossbreeds

Mean Age and Range

- Skin lesions typically develop before six months of age, and may develop as early as 7 weeks of age
- The full extent of lesions usually is present by 1 year of age, and may lessen thereafter
- Adult-onset dermatomyositis can occur, but is rare

SIGNS/OBSERVED CHANGES in the ANIMAL

- Clinical signs vary from subtle skin lesions and inflammation of muscles that does not cause clinical signs (known as “subclinical myositis”) to severe skin lesions and a generalized decrease in muscle mass (known as “muscle atrophy”) with an enlarged esophagus (part of the digestive tract, the tube running from the throat to the stomach; condition known as “megaesophagus”)
- Skin lesions around the eyes, lips, face, inner surface of the prick ears, tip of the tail, and bony prominences vary in intensity; the entire face may be involved—skin lesions may increase and decrease over time (known as a “waxing and waning” course); signs usually seen in affected dogs before they are 6 months of age
- Skin lesions—characterized by variable degrees of crusted areas with loss of the top surface of the skin (known as “erosions” or “ulcers”, based on depth of tissue loss) and hair loss (known as “alopecia”), with reddening of the skin (known as “erythema”), accumulations of surface skin cells, such as seen in dandruff (known as “scales”), and scars
- Scars may occur as a sequela to initial skin lesions
- More severely affected dogs may have difficulty eating, drinking, and swallowing
- Several litter mates may be affected, but the severity of the disease often varies significantly among affected dogs
- Foot-pad ulcers and ulcers in the mouth, as well as nail abnormalities or loss, may occur
- Inflammation of the muscles (myositis)—signs may be absent or vary from subtle decrease in the mass of the muscles extending from the top and side of the head, behind the eye, to the lower jaw (known as the “temporal muscles”) to generalized, symmetric loss of muscle mass (muscle atrophy) and stiff gait
- Decrease in muscle mass (muscle atrophy) of the muscles extending from the bone below the eye to the lower jaw (known as the “masseter muscles”) that act to close the jaw and muscles extending from the top and side of the head, behind the eye, to the lower jaw (temporal muscles) that act to close the jaw—may be evident
- Dogs with enlarged esophagus (megaesophagus) may present with aspiration pneumonia

CAUSES

- Hereditary
- Infectious agents
- Immune-mediated disease

RISK FACTORS

- Mechanical pressure and trauma, and ultraviolet-light exposure may worsen skin lesions

TREATMENT

HEALTH CARE

- Most dogs can be treated as outpatients

- Dogs with severe inflammation of the muscles (myositis) and enlarged esophagus (megaesophagus) may need to be hospitalized for supportive care
- Euthanasia may be indicated in severe cases

ACTIVITY

- Avoid activities that may traumatize the skin
- Keep indoors during the day to avoid exposure to intense sunlight

DIET

- May need to change diet, if dog has enlarged esophagus (megaesophagus) or has difficulty eating and/or swallowing

SURGERY

- Skin biopsy—may be diagnostic for dermatomyositis, although this disease can be difficult to diagnose definitively
- Muscle biopsy

MEDICATIONS

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Nonspecific symptomatic therapy includes hypoallergenic shampoo baths, treating secondary bacterial skin infection (known as “pyoderma”) and *Demodex mange* (known as “demodicosis”), and avoiding trauma and sunlight
- Vitamin E
- Essential fatty acid supplements
- Steroids (such as prednisone) to decrease inflammation
- Pentoxifylline to improve blood flow and to reduce inflammation

FOLLOW-UP CARE

PREVENTIONS AND AVOIDANCE

- Do not breed affected animals
- Neuter intact animals
- Minimize trauma and exposure to sunlight

POSSIBLE COMPLICATIONS

- Secondary bacterial skin infection (pyoderma) and *Demodex mange* (demodicosis)
- Mildly to moderately affected dogs may have residual scarring
- Severely affected dogs may have trouble chewing, drinking, and swallowing
- Enlarged esophagus (megaesophagus) may develop, increasing the likelihood of aspiration pneumonia

EXPECTED COURSE AND PROGNOSIS

- The effectiveness of medical treatment can be difficult to assess because the disease tends to be cyclic in nature and often is self-limiting
- Long-term prognosis—variable, depending on severity of disease
- Minimal disease—prognosis good; tends to resolve spontaneously with no evidence of scarring
- Mild to moderate disease—tends to resolve spontaneously, but residual scarring is common
- Severe disease—prognosis for long-term survival is poor as the inflammation of the skin (known as “dermatitis”) and muscles (myositis) may be lifelong

KEY POINTS

- Dermatomyositis is considered an inherited disease
- Affected dogs should not be used for breeding
- The disease is not curable, although spontaneous resolution or waxing and waning of signs may occur