

Pelodera strongyloides Dermatitis

DEFINITION

Pelodera strongyloides, or rhabditic, dermatitis is an erythematous itchy dermatitis caused by cutaneous infestation with the larvae of *P. strongyloides*.

ETIOLOGY AND PATHOGENESIS

Pelodera strongyloides is a free-living nematode that has a direct life cycle. It is found in damp soil or moist, decaying organic matter, such as straw, leaves, hay, and rice hulls. Larvae may invade skin which comes into contact with the contaminated soil or organic material and initiate inflammation (redness).

CLINICAL FEATURES

Lesions associated with this infestation occur in areas of skin that come into contact with the ground or bedding, but their appearance will vary markedly between cases. Focal or diffuse hair loss may be present with or without skin redness. Skin bumps, pustules, and crusts may be present in some cases. In chronic cases the skin may become thickened and dark in color. Itching can vary from minimal to intense.

DIFFERENTIAL DIAGNOSES

- Sarcoptic mange
- Allergic (atopic) dermatitis
- Contact irritant dermatitis
- Demodectic mange
- Hookworm dermatitis
- Ringworm
- Bacterial infection

DIAGNOSTIC TESTS

Skin scrapings should be performed to demonstrate the small, motile nematode larvae (563-625 μm in length. In some cases the larvae are easy to demonstrate and in others it can be very difficult.

MANAGEMENT

The primary goal of management is to change the animal's environment so as to avoid coming into contact with soil or



bedding harboring the larvae. Old, damp straw, hay, or other organic material should be removed from doghouses, kennels, or yards. After cleaning the inside of doghouses and the surfaces of runs, they can be sprayed with diluted malathion or pyrethroids. New bedding consisting of wood chips, old blankets, or shredded paper can then be placed. Animals should be bathed using a mild shampoo. Systemic antibacterial therapy would be appropriate if secondary bacterial infection is present.

Systemic steroids can be used for 3–10 days, or as necessary, to control severe itching. Once the environment is cleaned, the lesions should be self-limiting. Giving affected animals 1–3 weekly parasiticial dips using medications appropriate for scabies has been previously advocated. However, the efficacy of this is not known as there have been no studies performed to show whether these treatments shorten the course of clinical disease or not.

KEY POINTS

- The pruritus associated with *P. strongyloides* may be refractory to steroid therapy.
- Animal has been in contact with moist decaying organic material containing larvae.
- Is self limiting when animal is removed from infected environment.