

Acral Lick Dermatitis

DEFINITION

Acral lick dermatitis (acral lick granuloma, acral pruritic nodule) of the dog is a cutaneous manifestation of an obsessive compulsive disorder.

AETIOLOGY AND PATHOGENESIS

Obsessive-compulsive disorders probably represent complex aberrations in neurophysiology although the fundamental defects are not known. In some non-neurological cases it might be that a predisposing cause or initial insult, such as allergic reaction to pollens or dust in the air or specific foods, foreign body, infection, arthritis, bone disease, puncture wound, or insect bite induces attention and licking, which then exposes sensory nerves in the lower epidermis resulting in a continued stimulus to lick. It is important to differentiate true psychogenic Acral Lick Dermatitis, Acral Lick Dermatitis secondary to an organic cause, and Acral Lick Dermatitis-like lesions with other etiologies (see differential diagnosis). It is, however, recognized that the divisions are far from clear-cut, and that stress and medical triggers can both contribute to the development of Acral Lick Dermatitis in an individual dog. The stereotypical behavior is often further inadvertently reinforced by owner attention. Acral Lick Dermatitis of all types are inevitably secondarily infected with bacteria.

CLINICAL FEATURES

Most cases occur in large breeds. German Shepherd dogs, Doberman Pinschers, Irish Setters, Labrador and Golden Retrievers, Dalmatians and Great Danes appear to be predisposed. The lesion typically occurs on the upper aspect of the lower forelimb. Multiple lesions on more than one limb may be present in some individuals. Hair loss and saliva staining are followed by erosion of the skin, and a firm, thickened, well circumscribed, often pigmented and, occasionally, ulcerated plaque results.

DIFFERENTIAL DIAGNOSES

- Deep fungal infection
- Foreign body or pressure point granuloma
- Skin tumors
- Demodectic mange, tick or insect bite reaction



Deep bacterial infections

Medical triggers for Acral Lick Dermatitis include:

Allergies, mange and other pruritic conditions

Fractures, implants, bone infections, arthritis

Traumatic, inflammatory or degenerative neurological lesions

DIAGNOSTIC TESTS

A psychodermatosis is diagnosed by exclusion. A thorough history and clinical examination will help identify underlying conditions and rule out differential diagnoses. Biopsies may be necessary to help eliminate differentials such as tumors and infectious granulomas. Biopsy material may also be necessary for bacteriological culture and sensitivity, to confirm infection and identify suitable antibiotics.

MANAGEMENT

Any predisposing causes should be addressed. Dogs exhibiting lesions on multiple limbs are considered to have a poorer prognosis, perhaps, because they reflect a true psychodermatosis, while solitary lesions reflect alternative causes. Antibiotic therapy, preferably based on culture and sensitivity is essential. Most cases exhibit a good response within 3-4 weeks, but complete resolution may take 3-4 months, especially if there is rupture of the hair follicles and extensive scarring. Capsaicin ointment is beneficial in some cases. Antidotal reports of success using topical tacrolimus, topical hydrocortisone aceponate spray and cyclosporine in combination with aggressive bactericidal antibiotic therapy have been reported in a few cases.

Many cases will benefit from control of stress and obsessive-compulsive disorder. No one approach has been shown to be most effective, although it is now thought that a combination of behavioral therapy and drug therapy is more beneficial than either alone. Clomipramine, Amitriptyline, a combination of amitriptyline and hydrocodone, doxepin, fluoxetine, and naltrexone have all been advocated. All of these drugs should be used with care – serotonin uptake inhibitors can cause sedation and other central neurological effects, increased heart rate, mydriasis, restlessness, dry mouth, urinary retention, gastritis and nausea, and are contraindicated in hepatic or renal disease.

Lasers can be used to precisely debride acral lick granulomas. By sealing blood vessels, lymphatics and nerve endings, laser therapy results in faster healing with less pain and swelling. Without concurrent management of the underlying cause, however, most cases will develop new lesions at the original site or another location. Surgical excision is often very difficult, as the site and size of lesions creates problems for wound closure and the presence of sutures encourages self-trauma. Devices to prevent the animal from licking a lesion, such as Elizabethan collars, neck restraints or a plastic bucket with a portion of the bottom cut out and then fitted with the animal's head inside and attached to the collar, will often allow healing of lesions, but should only be used as a short term solution while further investigations and/or treatments are carried out as the lesions generally return with removal of the device.

KEY POINT Resolution of lesions is difficult and may not be possible in some cases.