Acral Lick Dermatitis (lick granuloma, acral pruritic nodule)

Features

Acral lick dermatitis is first noted as excessive, compulsive licking at a focal area on a limb, resulting in a firm, proliferative, ulcerative, alopecic lesion. The causes of the licking are multifactorial, and, although environmental stress (e.g., boredom, confinement, loneliness, separation anxiety) may be a contributor, other factors are usually more important (Box 13-1). This dermatitis is common in dogs, with the highest incidence in middle-aged to older, large-breed dogs, especially Doberman pinschers, Great Danes, Golden retrievers, Labrador retrievers, German shepherds, and Boxers.

The lesion usually begins as a small area of dermatitis that slowly enlarges because of persistent licking. The affected area becomes alopecic, firm, raised, thickened, and plaquelike to nodular, and it may be eroded or ulcerated. With chronicity, extensive fibrosis, hyperpigmentation, and secondary bacterial infection are common. Lesions are usually single but may be multiple, and they are most often found on the dorsal aspect of the carpus, metacarpus, tarsus, or metatarsus.

Top Differentials

Differentials include demodicosis, dermatophyte kerion, fungal or bacterial granuloma, and neoplasia.

Diagnosis

1. Usually based on history, clinical findings, and ruling out other differentials
2. Dermatohistopathology: ulcerative and hyperplastic epidermis, mild neutrophilic and mononuclear perivascular dermatitis, and varying degrees of dermal fibrosis
3. Bacterial culture (exudates, biopsy specimen): *Staphylococcus* is often isolated. Mixed gram-positive and gram-negative infections are common

BOX 13-1

Underlying Causes of Acral Lick Dermatitis

- Hypersensitivity (atopy, food)
- Fleas
- Trauma (cut, bruise)
- Foreign body reaction
- Infection (bacterial, fungal)
- Demodicosis
- Hypothyroidism
- Neuropathy
- Osteopathy
- Arthritis

Treatment and Prognosis

1. The underlying causes should be identified and corrected (see Box 13-1).
2. One should treat for secondary bacterial infection with long-term systemic antibiotics (minimum, 6-8 weeks, and as long as 4-6 months in some dogs). Antibiotic therapy should be continued at least 3 to 4 weeks beyond regression of the lesion. The antibiotic should be selected according to bacterial culture and sensitivity results.
3. Topical applications of analgesic, steroidal, or bad-tasting medications every 8 to 12 hours may help stop the licking.
4. Anecdotal reports suggest good efficacy with combined antibiotic, amitriptyline (2 mg/kg q 12 hours), and hydrocodone (0.25 mg/kg q 8-12 hours) administered until lesions resolve. Then, one drug should be discontinued every 2 weeks until it can be determined which drug (if any) may be required for maintenance therapy.
5. When no underlying cause can be found, treatment with behavior-modifying drugs may be beneficial in some dogs (Table 13-1). Trial treatment periods of up to 5 weeks should be used until the most effective drug is identified. Lifelong treatment is often necessary.
6. Laser ablation may be beneficial.
7. Mechanical barriers such as wire muzzles and bandaging, Elizabethan collars, and side braces are also helpful.
8. Surgical excision is not recommended because postoperative complications, especially wound dehiscence, are common.
9. The prognosis is variable. Chronic lesions that are unresponsive or extensively fibrotic and those for which no underlying cause can be found have a poor prognosis for resolution. Although this disease is rarely life threatening, its course may be intractable.

TABLE 13-1

Drugs for Psychogenic Dermatoses in Dogs

Drug	Dose
Anxiolytics	
Phenobarbital	2-6 mg/kg PO q 12 hours
Diazepam (Valium)	0.2 mg/kg PO q 12 hours
Hydroxyzine (Atarax)	2.2 mg/kg PO q 8 hours
Tricyclic Antidepressants	
Fluoxetine (Prozac)	1 mg/kg PO q 24 hours
Amitriptyline (Elavil)	1-3 mg/kg PO q 12 hours
Imipramine (Tofranil)	2-4 mg/kg PO q 24 hours
Clomipramine (Clomicalm, Anafranil)	1-3 mg/kg PO q 24 hours
Endorphin Blocker	
Naltrexone (ReVia)	2 mg/kg PO q 24 hours
Endorphin Substitute	
Hydrocodone (Hycodan)	0.25 mg/kg PO q 8 hours
Topical Products	
[16] Fluocinolone acetonide (Synotic) + flunixin meglumine (Banamine)	
[17] Deep Heet + Bitter Apple	

FIGURE 13-1 Acral Lick Dermatitis. This focal alopecic erosive lesion on the medial aspect of the distal leg is typical of this disease.

FIGURE 13-2 Acral Lick Dermatitis. A focal alopecic erosive lesion demonstrating the raised infiltrative nature typical of this disease.

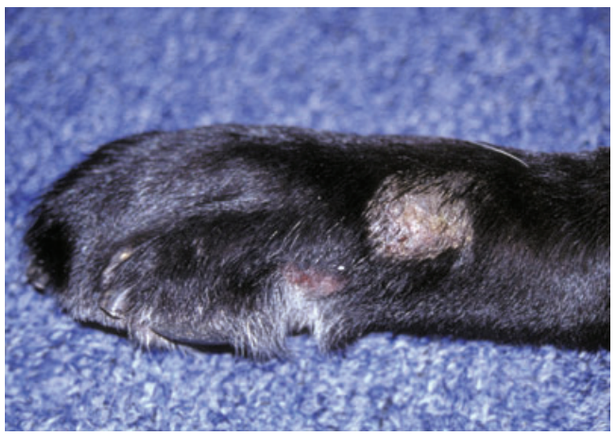

FIGURE 13-3 Acral Lick Dermatitis. A focal area of alopecia and thickening on the distal extremity.

FIGURE 13-4 Acral Lick Dermatitis. A focal area of alopecia with tissue thickening and minimal erosion.