

FIGURE 2-31. Nasal Pyoderma. Alopecia, erythema, and papular swelling on the bridge of a dog's nose. (Courtesy of D. Angarano)

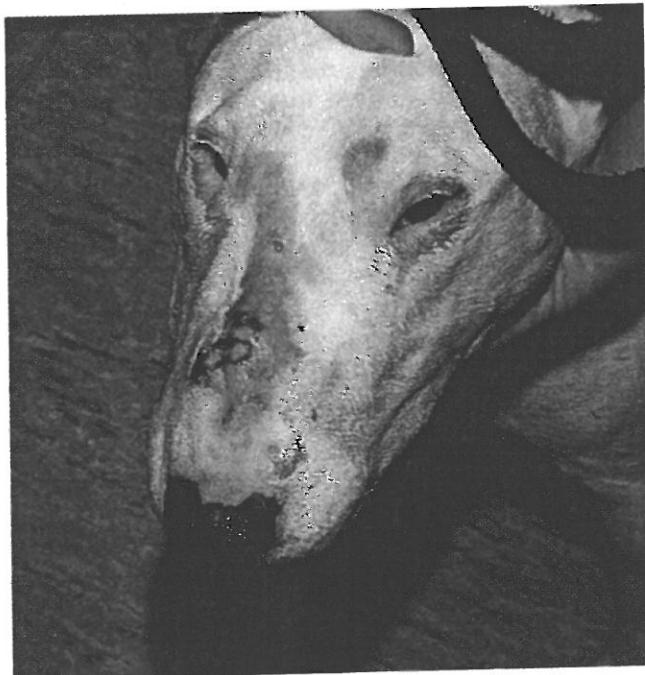


FIGURE 2-32. Nasal Pyoderma. Diffuse erythematous papular rash on the face of a terrier. (Courtesy of D. Angarano)

Bacterial Pododermatitis

(interdigital pyoderma, pedal folliculitis and furunculosis) (Figs. 2-33 to 2-40)

FEATURES

A deep bacterial infection of the feet that is almost always secondary to some underlying factor (Table 2-4). Common in dogs and rare in cats.

One or more feet may be affected with interdigital erythema, pustules, papules, nodules, hemorrhagic bullae, fistulae, ulcers, alopecia, and/or swelling. Pruritus (licking, chewing), pain, and/or lameness may be present. Regional lymphadenomegaly is common. Occasionally pitting edema of the associated metatarsus or metacarpus is seen.

TOP DIFFERENTIALS

Demodicosis, dermatophytosis, actinomycosis, nocardiosis, mycolactenosis, deep fungal infection, autoimmune skin disorders, neoplasia.

DIAGNOSIS

1. Rule out other differentials.
2. Cytology (exudate)—Suppurative to pyogranulomatous inflammation with bacterial cocci and/or rods is seen.
3. Dermatohistopathology—Suppurative to pyogranulomatous perifolliculitis, folliculitis, furunculosis, and nodular to diffuse pyogranulomatous dermatitis. Intralesional bacteria may be difficult to find.
4. Bacterial culture—The primary pathogen is usually *Staphylococcus*. Mixed gram-positive and gram-negative infections are also common.

TREATMENT AND PROGNOSIS

1. Identify and correct any underlying cause.
2. Give long-term (minimum 8-12 weeks) systemic antibiotics continued 2 weeks beyond complete clinical resolution (Table 2-1). The antibiotic should be selected based on bacterial culture and sensitivity results.
3. Adjunctive topical therapies that may be helpful include daily foot soaks for 10-15 minutes in 0.025% chlorhexidine solution, 0.4% povidone-iodine solution, or magnesium sulfate (30 mg/L water) for 5-7 days. Alternatively, foot scrubs using antibacterial shampoo or surgical scrub every 1-7 days as needed may be used.

4. Minimize foot trauma by having dog confined indoors, leash walked, and kept away from rough surfaces.
5. Fusion podoplasty, whereby all diseased tissue is removed and digits are fused together, is a radical alternative for severe cases.
6. Prognosis is good to guarded, depending on whether the underlying cause can be identified and corrected. In severe and chronic cases, permanent fibrosis and scarring may contribute to future relapses by predisposing feet to traumatic injuries.

TABLE 2-4 Causes of Secondary Bacterial Pododermatitis

Foreign body (plant awn, wood splinter, thorn)
 Trauma (stones, stubble, briars, wire floors, burns)
 Contact dermatitis (chemicals, fertilizers, weed killers)
 Parasite (demodicosis, ticks, pelodera, hookworm dermatitis)
 Fungus
 Hypersensitivity (food, atopy)
 Endocrinopathy (hypothyroidism, hyperadrenocorticism)
 Autoimmune and immune-mediated skin disorders



FIGURE 2-33. Bacterial Pododermatitis. Interdigital swelling and erythema are common features of bacterial pododermatitis. This infection was secondary to allergic dermatitis.

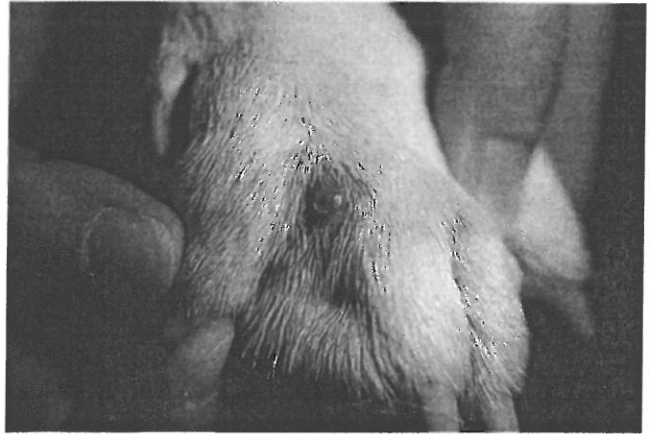


FIGURE 2-34. Bacterial Pododermatitis. Close-up of the dog in Figure 2-33. This bulla was visible only when the interdigital space was closely examined.



FIGURE 2-35. Bacterial Pododermatitis. Diffuse alopecia, erythema, and swelling affected most of the cutaneous surface. This more severe case also had multiple erosions and draining lesions around the nail bed and in the interdigital spaces (see Figure 2-36).