

Nasal and Digital Hyperkeratosis

DEFINITION

Nasal hyperkeratosis is associated with excessive amounts of horny tissue confined to the planum nasale. Digital hyperkeratosis presents similarly and affects the footpads.

ETIOLOGY AND PATHOGENESIS

Hyperkeratosis occurs as a consequence of increased production of, or retention of, dead skin tissue. Spontaneous idiopathic disease, particularly of the older dog, is the most common clinical presentation.

CLINICAL FEATURES

Nasal hyperkeratosis is confined to the nose and presents as a variably thickened, fissured accumulation of dry, horny tissue. Foot pad hyperkeratosis is more variable in presentation. Frond-like proliferations of keratin may occur in both locations. Areas of hyperkeratosis may crack, leading to secondary bacterial or yeast infection. In old dogs with idiopathic disease, the periphery of the footpads is more severely affected.

DIFFERENTIAL DIAGNOSES

- Canine distemper virus infectio
- Pemphigus foliaceus
- Zinc responsive dermatosis
- Metabolic epidermal necrosis

DIAGNOSTIC TESTS

Diagnosis is generally based on clinical findings. Histopathologic examination of biopsy samples is the most useful diagnostic tool.

MANAGEMENT

If a specific disease can be identified, then it should be managed accordingly. The management of idiopathic disease can be difficult because of the nature of the lesions and the tendency of the animal to lick topically applied agents. Local application of keratolytic and keratoplastic agents, such as preparations containing 60% salicylic acid, 5% urea, and 5% sodium lactate, may be of value. Topical tretinoin gel may also be of value in severe cases. Application of a solution



containing flucinolone acetonide in 60% dimethylsulfoxide to the affected areas twice daily is beneficial in many cases. Oral vitamin A may also be beneficial, as theoretically, it should help normalize the keratinization process.

KEY POINT

- A frustrating disease to manage.