

What is your Diagnosis? Answer to the question on page 93

Progressive lameness in a dog

Discussion

Aspirates from the thoracic mass, inguinal lymph nodes and tarsal joint revealed marked mixed inflammation with fungal sepsis. Fungal serology was negative for *Blastomyces*, *Histoplasma*, *Aspergillus* and *Coccidioides*. However, the fungal culture revealed moderate growth of *Paecilomyces spp.*

Antifungal therapy was changed from an initial course of fluconazole (5 mg/kg SID) to itraconazole (10 mg/kg SID), based on its success in humans (1). Despite therapy, the patient was humanely euthanatized two weeks later due to continuing deterioration.

Hyalohyphomycosis is a term that refers to infections that are caused by non-pigmented (or non-dematiaceous) fungi, or those that in tissue form hyphal elements that have hyaline (clear or transparent) walls (2). Genera that have been described as causing hyalohyphomycosis in humans, animals or both include *Acremonium*, *Fusarium*, *Geotrichum*, *Paecilomyces*, *Pseudallescheria*, and *Scedosporium* (3). *Paecilomyces spp.* are anamorphic ascomycete molds, which are closely related to *Penicillium spp.* (3). The fungi are common saprophytes found in soil, dust and decaying vegetation, though some grow in water (2, 3). Others may be considered part of the normal flora of the skin and gastrointestinal tract. Hyalohyphomycosis has been reported to cause both local and systemic disease. Local lesions tend to involve the skin, nasal mucosa and cornea. Disseminated lesions have been identified in the lungs, lymph nodes, kidneys, liver, spleen, heart, bone marrow, bones, and central nervous system (2, 3).

Treatment of paecilomycosis is usually with an antifungal medication such as itraconazole, fluconazole, or amphotericin B lipid complex. Surgical resection and debridement of surrounding tissues have been attempted with limited success. The prognosis is poor, even if initial response to therapy is noted, as recurrence or dissemination is common. Patients with a neurological disease also have a poor prognosis.



Fig. 1 Lateral survey radiographic view of the right tarsal region of a 4.5-year-old spayed female German Shepherd with a 3-month-history of a progressive non-weight bearing lameness of the right pelvic limb. Notice the extensive osteolysis and periosteal reaction involving the distal tibia, tarsal bones, and proximal metatarsal bones (arrowheads). The lesion is focally aggressive, as is observed by the complete destruction of the talus.

To the author's knowledge, this is the first reported case of paecilomycosis involving the extremities and crossing over a joint.

Diagnosis

Disseminated paecilomycosis that crossed multiple joint surfaces and created severe osteolysis in the tarsal region of an adult dog.

References

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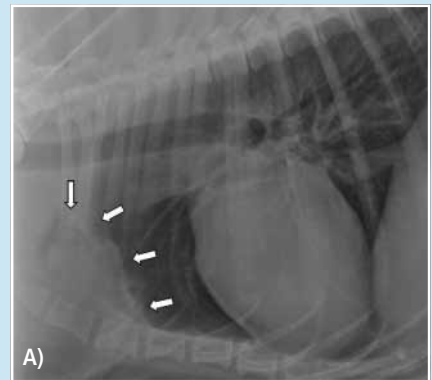


Fig. 2 Right lateral and ventrodorsal survey radiographic views of the thorax (A and B) of the same dog seen in Figure 1. A large, soft tissue mass is identified (arrows) in the cranial aspect of the thoracic cavity. The mass is displacing the lungs dorsally. No evidence of bony erosion is observed involving the underlying sternabrae.

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