Novel treatment of disseminated Coccidioidomycosis in a dog with voriconazole

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Abstract (300 word limit)

Coccidioides is endemic in some areas of the southwestern United States, Mexico, and South America, and it was most recently found in south central Washington. The treatment of choice for *Coccidioides* in humans depends on severity, chronicity, and anatomic involvement. In humans, fluconazole is the agent of choice and amphotericin B is often used for rapidly progressive coccidiodal infections. Newly available antifungal drugs that may be beneficial in refractory cases include voriconazole, caspofungin, and posaconazole. There have been a few case reports and one case study documenting successful treatment of disseminated coccidioidomycosis in human patients using voriconazole. In dogs, management of coccidioidomycosis involves long-term antifungal drug treatment, typically with azoles such as ketoconazole, itraconazole, or fluconazole. Amphotericin B is recommended in cases of severe, diffuse pulmonary infections to achieve a faster onset of action when compared to azoles. Dogs with disseminated coccidioidomycosis carry a grave prognosis despite standard treatment with fluconazole. This case report describes the successful management of a dog with disseminated coccidioidomycosis involving the skeletal, cutaneous, and pulmonary systems with voriconazole after failing traditional therapy with fluconazole and terbinafine. This report is the first to describe the successful management of refractory coccidiodomycosis with voriconazole in a dog.

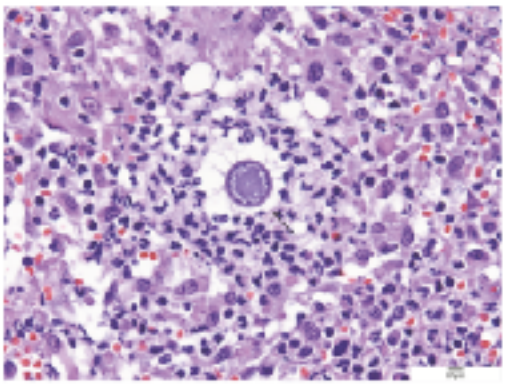


Figure 1 Immature spherule at the late segmentation phase prior to development of endospores of *Coccidioides immitis* (arrow) isolated from the left flank mass. The round structures are approximately 20–40 μm in diameter with 2 μm thick pale basophilic cell walls and heterogeneous amorphous pale amphophilic central material. Periodic acid Schiff (PAS) stain.

Recent Publications

1. Raghu C (2018) Evaluation of potential serum biomarkers of hepatic fibrosis and necroinflammatory activity in dogs with liver disease. J Vet Intern Med 32(3):1009-1018.



Biography (150 word limit)

Dr Chantel Raghu practices small animal internal medicine at Care Center in Cincinnati, Ohio. She attended veterinary school at Ross University with her clinical year at Texas A&M. Her one year small animal rotating internship was completed at Iowa State University prior to pursuing a small animal internal medicine residency at the University of Wisconsin-Madison. Aside from being a veterinary internist, she is also a local elected official to the City Council of Oxford, Ohio.

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Notes/Comments: