

CASE REPORT

A case series of unilateral orbital aspergillosis in three cats and treatment with voriconazole

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Abstract

Feline orbital aspergillosis is increasingly described in the published reports and may be an emerging disease. Orbital mycotic infections were diagnosed in three cats with exophthalmos, significant dorso-temporal globe deviation and pronounced resistance to retropulsion. Advanced imaging was performed in all three cases to evaluate the extent of disease as well as to obtain guided orbital biopsies in two cases. Surgical intervention in the form of a lateral orbitotomy was pursued in the first case with the other two cases treated with enucleation or medical management alone. The available published reports concerning sino-orbital aspergillosis are reviewed. Oral therapy with a novel triazole, voriconazole, was instituted in two cases. Although voriconazole was apparently effective against the fungal organisms, it is also resulted in adverse reactions.

Key Words: *Aspergillus*, cat, exophthalmos, mycosis, orbit, voriconazole

INTRODUCTION

Although reported as a rare condition in cats, sino-orbital aspergillosis is increasingly described in the published reports suggesting this may be an emerging disease.^{1–9} Invasive mycotic infections in humans, as well as animals, can occur as either disseminated or localized forms. The first report of a focal infection in the orbit and sinuses of a cat, due to *Penicillium* sp., dates back to 1980.¹⁰ Immunocompetent humans typically present with a localized, noninvasive infection, in contrast to immunosuppressed human patients who are more likely to develop severe and usually fatal disseminated invasive aspergillosis.^{11–13} Disseminated aspergillosis is an opportunistic infection in immunosuppressed cats and is reported secondary to diabetes mellitus, viral infections (feline leukemia virus, feline immunodeficiency virus, feline panleukopenia), or prior treatment with glucocorticoids or antibiotics.¹⁴ In contrast to disseminated or systemic aspergillosis, sino-orbital infection is considered a local disease which can develop in immunocompetent feline patients. Fifteen cases of localized nasal or orbital aspergillosis have been reported previously.^{1–9} Of these cases, only one cat was suspected of being immunosuppressed (due to diabetes mellitus and the administration of immunosuppressive doses of corticosteroids).⁹ Eleven of the fifteen cats were tested for

feline leukemia virus (FELV) and feline immunodeficiency virus (FIV), and only one tested positive for FELV.² The purpose of this study is to present three cases of orbital aspergillosis, which presented to the author in a 1-year time period, and to document the treatment of two cats with a novel triazole antifungal agent, voriconazole.

CASE #1

A 5.5-kg, 2-year-old, male neutered, domestic short-hair cat was referred with a 4-month history of left third eyelid protrusion and exophthalmos. Over the 4-month time span, an intermittent clear discharge was noted from the left eye and the cat had a history of upper airway congestion. Serum biochemistry and complete blood counts performed at the referring veterinarian were within normal limits; no further diagnostics were performed to elucidate the cause of the upper airway congestion. Previous treatment included oral cephalexin, meloxicam, and clindamycin with only mild improvement of the respiratory symptoms. The cat lived indoors as well as outdoors in Arizona. There was no history of travel or trauma. At presentation, the cat remained bright, alert, and responsive with a good appetite. The left globe was moderately exophthalmic, deviated dorsolaterally, and had a pronounced resistance to retropulsion. The left third