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Case study on diagnosis and treatment of bacterial otitis external in cat

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Abstract

Otitis externa is a common diseases found in cats. Otitis externa caused by *Staphylococci* spp. was diagnosed in cat. For treatment, 0.3% moxifloxacin otic drops (as per culture sensitivity report) was instilled for five days after cleaning ear with 2% Salicylic acid ear drops. After three days of treatment, clinical symptoms disappeared. No bacterial agent was identified on subsequent cultural examination on seventh day post treatment.

Keywords: otitis, bacterial infection, otic drops

Introduction

Otitis is defined as inflammation of the ear. Otitis externa is a term used when only the external canal, outside of the tympanic membrane, is involved. Feline otitis is a multifactorial and challenging clinical problem. Predisposing factors includes high-humidity environments and frequently bathing. Clinical signs include erythema, increased discharges or desquamation of the epithelium and pain or pruritus. Bacterial (mainly *Staphylococci* spp.) and fungal (*Malassezia* spp.) infections are very common in cats. Diagnosis is mainly done by physical examination of the ear and cultural examination of ear discharge. The present study describes the clinicopathological diagnosis and successful therapeutic management of otitis in cats.

Material and Methods

A three month old cat was presented with a history of head shaking and ear scratching. Clinical examination revealed bilateral excessive dark brown ceruminous exudates loosely attached to the inner surface of pinnae and almost completely clogging the ear canal. A very offensive odor was present in the ear. The ear discharge was collected by sterile cotton swabs and smears were made for microscopic examination. Bacteriological culture and culture sensitivity was done.

Results and Discussion

The present study describes the clinical findings, diagnosis and therapeutic management of otitis in cats. Bacteriological culture was done to find out causative agent for bacterial infection and culture sensitivity test was done. Thus, on the basis of history, clinical manifestations and evidence of ear exudate, cat was diagnosed to have bacterial ear infection. Ear wax, collected by sterile cotton swab and was send for cultural examination. Bacterial culture yielded *Staphylococcus* spp. infection in both ears of infected cat. Culture sensitivity reports are shown in Table 1. Staphylococci were the bacteria isolated from both the ears of infected cat, which is consistent with previous reports on cats suffering from otitis externa (Hariharan *et al.*, 2006) ^[1]. Lefkaditis *et al.* (2009) ^[2] described more susceptibility in kitten between 3–6 months of age. Evidences of risk factors such as age, sex, breed, shape of ear, type and length of hair effect are usually controversial but contact with other animals may act as potential risk factors (Souza *et al.*, 2008) ^[3]. Use of topical otic antibiotic is a common practice among the veterinarian to treat ear infection with a good success rate. Mösges *et al.* (2011) ^[4] stated that fluroquinolones (ciprofloxacin) showed a trend towards the superiority of cure rate in comparison to non quinolones.

Ears were cleaned with 2% Salicylic acid and then otic drops containing 0.3% Moxifloxacin, was instilled three times a day for five days. Clinical signs disappeared three days after treatment. Following seven post therapy cat ear became normal without exudation and irritation. No bacteria was found on subsequent cultural examination of swabs.

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Table 1: Cultural reports of Ear swabs collected from both the cats.

Parameter	Cat
Age	3 months
Sex	Male
Breed	Non descript
Secondary bacterial infection	Right and left ear - <i>Staphylococcus</i> spp.
Bacterial isolate sensitivity	Moxifloxacin, Ampicillin, Cephalexin, Cloxacillin, Cefoperazone, Amikacin
Bacterial isolate resistance	Enrofloxacin, Penicillin G, Carbenicillin, Streptomycin, Amoxycillin, Ciprofloxacin, Norfloxacin, Cloramphenicol, Kanamycin, Ceftriaxone, Levofloxacin, Cefotaxime, Neomycin, Tobramycin, Gentamcin

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