

TITLE: INFECTIOUS OTITIS IN CATS: A RETROSPECTIVE STUDY OF 59 CASES (1997 – 2016).

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ABSTRACT:

Infectious otitis of bacterial, fungal or parasitic origin is an unusual disease in cats, unlike in dogs. Most of the descriptions of this disease in domestic cats are restricted to case reports. The present study retrospectively analyzed the bacterial, microbial susceptibility profile "*in vitro*" and epidemiological aspects of otitis in 59 cats seen at FMVZ - UNESP Botucatu, SP over 1997-2016. Samples of otological secretions were collected with sterile swabs from both ears of the animals, later inoculated into bovine blood agar (5%) and MacConkey agar, incubated at 37°C under aerobic conditions for 72 hours. Sample culture was also performed on Sabouraud medium, maintained at room temperature (25°C) for 15 days. The microorganisms were identified according to the morphotintorial, biochemical and culture characteristics. All bacterial isolates were submitted to the *in vitro* microbial sensitivity test by the disc diffusion method established by National Committee for Clinical Laboratory Standards (NCCLS). The cases occurred mainly in mixed breed animals between 3 - 5 years, predominantly in the fall and winter months, periods related to immunity decline in animals. From 61 isolates, *Staphylococcus aureus* (26.22%) was the most found agent, followed by *Malassezia pachydermatis* (19.61%). Enterobacteria (8.15%) were frequently found associated with other agents. The association between *Malassezia pachydermatis* and bacteria were found in 14.75% cases. However, this yeast is also described as the sole agent in feline otitis. The isolates were especially sensitive to ofloxacin (90.16%), norfloxacin (88.73%) and gentamicin (86.11%). The highest resistance rate (25%) was found for cephalexin and neomycin, followed by tobramycin (18.30%). Cephalexin is a cephalosporin indicated for the control of *Staphylococcus* sp. infections but some strains of microorganism produce β -lactamases, an important mechanism of resistance to this antimicrobial. The high resistance to neomycin may be related to the prolonged use of this aminoglycosides in otological solutions. This study highlights the etiological complexity of feline otitis and the need to perform treatments with support in microbial sensitivity tests, avoiding the indiscriminate use of antimicrobials otologically and the selective pressure for multiresistant bacterial strains.

KEYWORDS: otitis, domestic cats, microorganisms, bacterial resistance, *Staphylococcus* sp.