

OCCURRENCE AND ANTIMICROBIAL SUSCEPTIBILITY PROFILE OF *Streptococcus canis* ISOLATES FROM CATS AND DOGS

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Abstract

Streptococcus canis (*S. canis*) is a normal flora normally found in oral mucosa and skin of cats and dogs, but various studies have shown that the pathogen is able to cause diseases in a wide range of animals and some clinical cases are severe enough to cause death. This study aimed to describe the occurrence of clinical cases of *S. canis*, as well as phenotypic and antimicrobial susceptibility patterns in cats and dogs. Data was retrieved from the Bacteriology Laboratory of Faculty of Veterinary Medicine, Universiti Putra Malaysia. A retrospective analysis was conducted for data collected from January 2019 until December 2023. A total of 92 feline and 36 canine cases identified with *S. canis* infections. For both cats and dogs, *S. canis* were mainly isolated from pyogenic wounds, ear infections and multiple organ involvement. Antimicrobial susceptibility test (AST) done for cats and dogs showed *S. canis* are highly susceptible to amoxicillin, amoxicillin-clavulanic acid and cephalosporin antibiotics. High antimicrobial resistance was seen in neomycin, metronidazole and polymyxin B, with resistance rates from 72% to 100%. One of the most used antibiotics, enrofloxacin, showed a low susceptibility rate of 30% and 26% for both cats and dogs respectively. Up to 57% of *S. canis* in cats and dogs exhibit multidrug resistance. To conclude, *S. canis* is an emerging and important pathogen in cats and dogs as it exhibits a high antimicrobial resistance pattern and are also capable of affecting different species as well. Further studies on drug resistance and therapeutic outcome of cats and dogs are reasonable.

Keywords: *Streptococcus canis*, cats, dogs, antimicrobial susceptibility