

**TITLE:** VIRULENCE OF RHODOCOCCUS EQUI IN A YOUNG CAT

**AUTHORS:** POGGIANI, S.S.C.; CARLI, L.M.; TOZETTI, R.A.; SILVA, B.P.; VARGAS, A.C.; LAZZARI, A.M.

**INSTITUTION:** UNIÃO PIONEIRA DE INTEGRAÇÃO SOCIAL (UPIS), BRASÍLIA, DF (CAMPUS II, RODOVIA BR 020, KM 12, CEP 73750-980, BRASÍLIA – DF, BRAZIL)

**ABSTRACT:** *Rhodococcus equi* is a gram-positive, facultative, intracellular coccobacillus. Although *R. equi* infections in cats are rare, they have recently been increasingly reported. In this specie, pyogranulomatous lesions are the main symptom. There are reports of rhodococcus infection in imunocompromised humans. Also, in veterinary medicine, studies suggest that feline *R. equi* infections were probably associated with FIV infections. This report describes clinical signs, culture results and the presence of the virulence-associated antigens (VapA) in a young cat with skin lesions due to *R. equi*. A 2-year-old, male, crossbreed, feline leukemia virus infected cat was presented with a 2-month history of a cutaneous granuloma, characterized by nodules, alopecia, erosion, swelling, draining tract and pain, located on abdominal skin. One month later, there was a similar lesion on the left forelimb. Samples for cytology and bacteriological culture were taken from skin lesions and submitted to the Laboratory of Bacteriology at the UPIS, which isolated and phenotypically identified *Rhodococcus equi* and tested its susceptibility to antimicrobial drugs (antibiogram). The organism was resistant to cephalexin and susceptible to amikacin, amoxicillin-clavulanate, azithromycin, ciprofloxacin, chloramphenicol, doxycycline, erythromycin, gentamicin, neomycin, nitrofurantoin, norfloxacin and tetracycline. The isolate was submitted to the Laboratory of Bacteriology of the UFSM (LABAC) for genotypic identification of the species and virulence gene research. PCR confirmed the specie and was positive for the Vap A gene. The cat died, despite clinical and surgical management. The authors highlight the importance of including *Rhodococcus equi* infection in the differential diagnosis of pyogranulomatous skin disease and cellulitis in cats.

**Keywords:** feline, granuloma, infection, PCR, Vap A

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