

**TITLE:** CASES OF FELINE SPOROTRICHOSIS IN THE LABORATORY OF VETERINARY MICROBIOLOGICAL DIAGNOSIS (UFRRJ) FROM JANUARY 2018 TO APRIL 2019

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**ABSTRACT:**

Sporotrichosis is a granulomatous zoonotic disease caused by the traumatic implantation of *Sporothrix schenckii* complex fungi. It has become a public health concern due to the epidemic situation in the state of Rio de Janeiro, which a significant increase in the number of cases over the last decades, especially in humans and cats. Among the main reasons for that status, we highlight the tropical climate that favors the propagation and maintenance of this fungus in the environment and the high population of stray animals, as well as the allowance of domiciled animals to have free access to the street. Felines have a high microbial load into their wounds, which is easily transmitted to other animals and humans by bites or scratches. Additionally, we are dealing with a microorganism intrinsically resistant to environmental challenges and highly pathogenic and virulent, that usually requires long term treatment with oral medication, which needs the owner's support for months. The present work considered samples from the Veterinary Hospital (UFRRJ) from January 2018 to April 2019. The hospital services are offered for the population from the municipality of Seropédica and adjacent regions. Cutaneous swab samples and tissue fragments were simultaneously placed on Sabouraud Agar and Selective Agar for Pathogenic Fungi, being incubated at 25 °C, with daily follow up for up to 30 days. Direct microscopy of the samples was performed on a slide and fuchsin stained, searching for the presence of fungi structures. The identification at the complex level was reached based on the micromorphological characteristics on cotton blue lactophenol slides on an optical microscope. A total of 366 suspected samples for mycological search were received during the considered period. From those, 161 (44%) were obtained from suspected sporotrichosis cases, being 114 (71%) from cats. Positive results were obtained in 53 samples (46%). These values highlight the already known sexual predisposing factors behind sporotrichosis, correlated with the sexual behavior of male cats and the consequent increasing exposure to the microorganism. Sporotrichosis cases have been increasing over the last decades and the present result shows that the relevance of this zoonosis to the state of RJ continues. Public policies implementations to facilitate the diagnosis and treatment of feline sporotrichosis are a key factor to manage this important human and animal disease.

**Keywords:** Sporotrichosis; *Sporothrix schenckii*; felines; Rio de Janeiro

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