

TITLE: IDENTIFICATION OF SPECIES OF THE COMPLEX *SPOROTHRIX* FROM THE CITY OF RIBEIRÃO DAS NEVES, STATE OF MINAS GERAIS

AUTHORS: RESENDE-STOIANOFF, M.A.; NAVARRO, D.B.S.; G.J.C.; SILVA, D.L.

INSTITUTION: Departamento de Microbiologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais. Av. Antonio Carlos 6627, 31-270-901, Belo Horizonte, MG, Brazil

E mail: maresend@icb.ufmg.br

ABSTRACT:

Sporotrichosis is a subcutaneous mycosis caused by dimorphic fungus of the *Sporothrix* complex. Among the species that cause the infection are *Sporothrix brasiliensis* (the major cause of epidemic outbreaks), *S. schenckii*, *S. lurieri*, *S. globosa*, *S. mexicana* and *S. pallida*. Sporotrichosis is a disease that can affect both humans and other animals, being more common and severe in cats, and occurring more frequently in regions of tropical climate, as is the case in Brazil. Because it is not a compulsory notification disease in most Brazilian states, the true incidence of the disease is unknown. However, several municipalities have reported the occurrence of outbreaks. We report the occurrence of ten cases of human sporotrichosis in patients referred by the CEM-SUS Specialty Center, in the city of Ribeirão das Neves (MG), between August 2018 and May 2019. The patients ranged between two and 54 years old. All patients reported contact with sick cats. The mean time between contact with cats and the onset of lesions was 15 days. The secretions of the ulcerated lesions were collected with the aid of sterile swab and the material was subjected to Gram staining, as well as to the culture at 28°C and 37°C and the micromorphological identification. The cultures were positive for fungus of the *Sporothrix* complex for all cases, having been verified the thermal dimorphism as well as the micromorphology by the technique of microculture and the species were identified by techniques of molecular biology. *Sporothrix brasiliensis* was the species most frequently identified. The results suggest that there may be a microepidemia of sporotrichosis in the municipality of Ribeirão das Neves, with important zoonotic transmission of the disease. According to official information, the conditions of infrastructure and sanitation are precarious in this region. The notification of this disease and studies that relate the socio-environmental and behavioral conditions that can determine the variation in sporotrichosis transmission are of great importance, in order to adopt the appropriate prevention and control measures.

Keywords: Sporotrichosis, *Sporothrix* complex, microepidemia

Development Agency: CAPES, CNPq, FAPEMIG