

Title: ISOLATION OF *Basidiobolus ranarum* IN EQUINE

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Abstract:

The Zygomycoses cover a group of subcutaneous diseases, which has very similar clinical characteristics, among these diseases there is Basidiobolomycosis caused by *Basidiobolus ranarum*. This microorganism belongs to the order of *Entomophthorales* being found in the digestive tract of lizards, frogs and some bats. According to clinical reports, the disease caused by *B. ranarum* is characterized by ulcerative and granulomatous lesions, causing intense itching and eventually self-mutilation. Several species can be affected, but most of the times it is reported in equines, with no predilection for breed, gender or age, and there is no correlation with the seasons. Two injury fragments of front and back limbs of female Breton horse were submitted to the Laboratório de Micologia Clínica of UFRRJ. Direct microscopy was done with blades made by the Gram technique and KOH and inoculation on Sabouraud Chloramphenicol agar, Dichloran Rose Bengal Chloramphenicol agar and selective agar for pathogenic fungi. The main clinical suspicion was pythiosis and therefore, the actions were based on the isolation and identification of *Pythium insidiosum* due to the history of the animal and clinical features. However, nothing was found in relation to this microorganism. In direct microscopy were displaying large hyphae and non-chambered, directing the actions to the isolation of other possible cause of the injuries, as *Basidiobolus ranarum* and *Coniobolus coronatus*. Was obtained expanding growth, subhyaline, waxy, without aerial mycelium, with cerebriform center and radial deep fissures in the outer zone in all inoculated media, identified *B. ranarum* in the samples. There was also isolation and identification of *Mucor* spp. microorganism also relates to these types of injuries. Histopathological examinations showed hyphae in fragments, confirming the diagnosis. Lesions disappeared spontaneously, not being accomplished any treatment. Therefore, there is the importance of not rule out the *Basidiobolus ranarum* as causing injury in horses, leading to decreased production of animals and consequent economic loss to the breeder.

Keywords: mycology, mycoses, veterinary biology, horse