MOLECULAR CHARACTERIZATION OF *Rhodococcus equi* ISOLATES OF HORSE BREEDING FARMS FROM AN ENDEMIC REGION IN SOUTH OF BRAZIL BY MULTIPLEX PCR

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Rhodococcus equi is a gram positive coco-bacillus and an intracellular opportunistic pathogen which causes pneumonia in foals. It is widely detected in environment. The goal of this study was to characterize the epidemiological status of horse breeding farms from Bage County in South of Brazil, using a multiplex PCR. One hundred and eighteen *R. equi* isolates were achieved from three farms where the disease has been noticed, two where the disease has been not reported and one farm where the *R. equi* infection is frequent. All clinical isolates from horse breeding farms which the disease is endemic or sporadic were *R. equi vapA* positive. None environmental and foal feces isolates were *vapA* positive. In three horse breeding farms with sporadic *R. equi* infection, 11.54% of the isolates from adult horse feces were positive to *vapA* gene. The multiplex PCR technique is able to characterize molecular and epidemiologically the *R. equi* infections in farms. An important finding in this study is the *R. equi vapA* positive detected from adult horse feces. This can be evidence for other routes to bacterium dissemination in the farms.

Key-Words: *R. equi*, Multiplex PCR, epidemiology