

Investigation of *Rabies virus* circulation in non-human primates of Minas Gerais, Brazil (2013 - 2021)

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Rabies virus (RABV) (*Lyssavirus*, *Rhabdoviridae*) is a zoonotic virus that causes a neuroinvasive disease usually fatal. In Brazil, the human cases of rabies are primarily related to bites of bats and carnivores (canids and cats), but non-human primates have also been described as a source of infection. Cases of rabies in NHP have been mainly recorded in the northeast of the country. However, some studies suggest the circulation of the RABV in NHP in other Brazilian regions. The aim of this study was to perform a retrospective analysis of data regarding RABV infection in NHP in Minas Gerais state, southeast Brazil. The data was compiled through the records of the Laboratory of Zoonoses, institution responsible for the rabies laboratorial diagnosis in the state. From January 2013 to August 2021, the institution received 2717 NHP carcasses, represented by: 75 *Alouatta caraya*, 4 *Alouatta fusca*, 42 *Alouatta guariba*, 4 *Alouatta* sp., 6 *Callicebus* sp., 4 *Callithrix jacchus*, 205 *Callithrix geoffroyi*, 1727 *Callithrix penicillata*, 14 *Callithrix* sp., 153 Cebidae, 2 *Cebus apella*, 1 *Cebus nigricans*, 2 *Leontopithecus rosalia*, 1 *Pan troglodytes*, 11 *Sapajus apella*, 1 *Sapajus* sp., and 465 non identified specimens. Most of the samples were collected during yellow fever surveillance programs, by the time that *Yellow Fever virus* outbreaks took place in the state, from 2017 to 2018. Regarding the preservation status of the carcasses, 43% were considered good, 28,2% were reasonable, 14,4% were bad and 14,5% were discarded. Brain samples were collected and tested by Direct Immunofluorescence and mice intracerebral inoculation. From the total of samples analyzed (n=2319), all were negative for RABV. Although rabies virus was not detected in NHPs analyzed here, the passive surveillance is of major importance to the understanding of epidemiology of the disease and development of control strategies.

Keywords: Rabies virus; zoonoses; surveillance; non-human primates

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