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ANTIGENIC CHARACTERIZATION OF RABID ANIMAL ISOLATES, NORTHERN BRAZIL, 2008/2012.

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Introduction: The identification of the antigenic variants of rabies virus furnish important information on the origin of the circulating rabies virus in a determined region and, in consequence, the existing cycles and the involved species on them.

Aiming to extend the knowledge of the epidemiology of the rabies in northern Brazil, we incorporated the technique of antigenic characterization for the laboratorial diagnosis of the rabies. Objective: To determine the epidemiologic profile of the animal rabies in northern Brazil, during the period of January 2008 through July 2012.

Method: A total of 32 rabies virus isolates from wild and domestic animals were used for antigenic characterization as follows: 21 dogs, a cat, five bovine, three equine and two bats all of them from Pará State. The Indirect Imunofluorescence Assay (IIFA) was performed using a panel of monoclonal antibodies against the rabies virus nucleoprotein (produced by CDC/Atlanta, USA), One dog rabid sample was genetic characterizated performed using the assay of RT-PCR in two steps seconds Barbosa et al (2007).

Results: The 20 dog isolates and one cat sample were identified as Variant 2, strain commonly found among dogs; all bovine, equine and bat rabid samples (nonhematophagous) were identified as Variant 3, whose reservoir is the hematophagous bat *Desmodus rotundus*, a sample of dog, not compatible with the panel, was characterized genetically as VAg3. **Conclusions**: These results suggest that in the northern region of Brazil the antigenic variant 2 continues to be the prevalent in dogs; the other strains were antigenically characterized as belong to the variant 3 (from vampire bats). The genetic characterizations of all studied strains are on going and should complement this study.

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ANTIGENIC AND GENOTYPIC CHARACTERIZATION OF RABIES VIRUS ISOLATES FROM BATS FROM BOTUCATU CITY AND REGION

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For some time ago, bats are receiving an increased importance in Public Health because they are considered the main reservoirs of rabies virus around the world, including Brazil. Although bats remain the rabies epidemiological cycles for centuries, only in the last decades the rabies in bats had its recognition, throughout researches focused on the role of these animals in the epidemiological cycle of the disease and also on their variants and their implications in the development of new reservoirs for rabies virus, mainly in regions where the disease in dogs was controlled. The state of São Paulo, coordinated by the Institute Pasteur, performs epidemiological surveillance for rabies through registered laboratories for its diagnosis. The labs of Zoonosis Diagnostic Service, School of Veterinary Medicine and Animal Science – UNESP – Botucatu – SP is registered for receiving material for diagnosis of some municipalities of the region.

Between 2003 and 2010, 19 samples of non-hematophagous bats were diagnosed as positive by IFD and Biological Evidence. These isolates were antigenically characterized by the panel of monoclonal antibodies donated by PAHO-CDC (Centers for Disease Control and Prevention, Atlanta, GA, USA Pan-American Health), revealing seven of these isolates belonged to variant 3, which has the vampire bat Desmodus rotundus as reservoir, as well as an insectivorous bat of the genus Myotis presenting variant 4, characterisite of the other insectivorous bat Tadarida brasiliensis, and other three profiles are not compatible, NC-1, NC-2 and NC-3. All isolates were assayed by RT-PCR and their products had the nucleoprotein gene (N) viral partially sequenced, generating a phylogenetic tree that grouped these isolates into four clusters, designated as lineages Nyctinomops, Myotis, Desmodus rotundus, and a new lineage of rabies virus not previously characterized, which apparently has the bats of the genus Myotis as reservoir. This lineage showed an average intraspecific identity of 99.8%, ranging from 99.6 to 100% for nucleotides and 100% amino acids.