TAXONOMIC CHARACTERIZATION OF THE *Minaçu virus* (STRAIN BE AR 548794) A POSSIBLE NEW ARBOVIRUS.

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INTRODUCTION

Presently in Brazilian Amazon, at least 196 different types of arboviruses have been isolated, 34 of them are associated with human illnesses. Therefore, the development of studies for characterization of new viruses is essential for a best understanding of these viruses allowing to define their taxonomic status.

OBJECTIVE

The objective of this work was to determine a taxonomic status to *Minaçu virus* (Be AR 548794), a virus strain isolated from pooled *Ochlerotatus scapularis* mosquitoes obtained in Minaçu, Goiás State, Brazil.

MATERIAL and METHODS

For viral characterization of the isolate was used several laboratory procedures, as follows: virus cultivation onto VERO and C6/36 cells, serological tests (HI, CF, and IFA), sensibility to sodium deoxicolate acid (DCA), ultrastructural analysis by transmission electronic microscopy (TEM), polyacrilamide gel electrophoresis (PAGE) of RNA, and experimental infection by intracerebral inoculation of *Minaçu virus* into suckling mice followed by histopathologic and immuno-histochemical (IHQ) examination of infected organs.

RESULTS

*Minaçu virus* replicates and causes CPE into VERO (Fig. 1B), but not in C6/36 cells. IFA was only positive to VERO cells (Fig. 1D). CF tests were negative for antiserum of all arboviruses previously isolated in Brazil, but was positive against *Minaçu* antiserum (Table 1). Hemagglutinin activity was not observed. *Minaçu* is resistant to DCA, and by TEM, envelope was not observed (Fig. 1F). By using of the negative staining, viral particles have been detected showing about 75 nm in diameter (Fig. 1F). By PAGE the profile of *Minaçu virus* genome is a ten segmented RNA. Histopathology of infected animals showed necrotic and apoptotic cells in brain, heart, liver, spleen and kidney, and viral antigens were detected by IHQ in all tissues but especially in brain, liver and heart (Fig. 2).

Table 1. Immune serums tested against Minaçu virus antigen (Be AR 548794) using CF tests.

| FAMILY | GENUS | SPECIES | ANTIGENIC GROUP | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERTICAL | VERT