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Genomic characterization and evolution of Tacaiuma orthobunyavirus

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Genomic characterization and evolution of Tacaiuma orthobunyavirus (Peribunyaviridae family) isolated in Brazil.

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Abstract

Tacaiuma virus (TCMV) is antigenically characterized as a member of the Anopheles A complex in the **Orthobunyavirus** genus, **Peribunyaviridae** family (Bunyavirales order). Clinically, the TCMV infection is characterized by acute febrile illness with myalgia and arthralgia lasting three to five days. However, the **genomic** and evolutionary aspect of this virus has not been elucidated. In this study, we described the complete coding sequences of three segments of two TCMV strains **isolated in Brazil** and three complete coding sequences of the small segment of three TCMV strains. All the strains sequenced in this study showed the typical **genomic** organization of orthobunyaviruses that infect vertebrates, except for the absence of the open reading frame that encodes the well-described non-structural small protein. This study presents the **genomic** and evolutionary **characterization** of TCMV strains and would be helpful for diagnostic purposes and epidemiology.

KEYWORDS: Arbovirus; Bunyavirales; **Genomic characterization; Orthobunyavirus; Tacaiuma orthobunyavirus**

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