



REVISIÓN # 2 [10.18004/mem.iics/1812-9528/2025.e23152501_rev2](https://doi.org/10.18004/mem.iics/1812-9528/2025.e23152501_rev2)

Emerging Threat of Orthobunyavirus oropouchense in Paraguay: The importance of Genomic Surveillance and Innovative Diagnostic Tools

PRIMERA RONDA

Observaciones

The article is relevant and appropriate as a letter to the editor. To enhance its quality, it is suggested to improve certain paragraphs (listed below) and to consider including some additional points in the letter:

- 1) Paragraph suggestion: Recently, OROV prevalence has rapidly spread throughout numerous countries within South America, including Brazil, Peru, Bolivia, Colombia, Venezuela, Panama, and Ecuador. Suggestion: OROV has been increasingly reported throughout numerous countries within South America, including Brazil, Peru, Bolivia, Colombia, Venezuela, Panama, and Ecuador
- 2) Paragraph suggestion: This new lineage has been linked to an array serious clinical manifestation, such as neurological complications, mother-to-child transmission, and even fatalities. Suggestion: This new lineage has been linked to an array of serious clinical manifestation, such as neurological complications, mother-to-child transmission, and even fatalities.
- 3) Paragraph suggestion: Moreover, Paraguay shares open borders with Brazil and Bolivia, where OROV is currently endemic, which heightens the likelihood of introduction through human or vector migration (4,5). Suggestion: In addition, Paraguay shares open borders with Brazil and Bolivia, where OROV is currently endemic. This geographic proximity increases the likelihood of viral introduction via human travel or vector migration
- 4) To consider: To date, there appear to be no published reports confirming the presence or distribution of *Culicoides paraensis* in Paraguay. Considering its key role as the primary vector of OROV, this lack of entomological data raises important concerns. Addressing this gap should be a priority within broader surveillance efforts, as understanding local vector dynamics is essential for accurately assessing the country's risk of future outbreaks. Therefore, I suggest briefly addressing this in the letter.
- 5) Paragraph suggestion: Genomic surveillance remains highly essential for monitoring the virus's evolution and identifying novel, potentially more virulent strains. Such information remains highly crucial for public health responses and underscores a pressing need for novel innovations within the areas of diagnostics, vaccines, and specific therapeutics (3,6,7). Suggestion: Genomic surveillance is essential for tracking viral evolution and detecting the emergence of novel, potentially more virulent strains. These data are crucial for informing public health responses and highlight the need for innovations in diagnostics, vaccine development, and targeted therapeutics.
- 6) Paragraph suggestion: Although reverse transcription polymerase chain reaction (RT-PCR) remains the diagnostic gold standard, its use is often limited in low-resource settings. Therefore, alternative rapid and field-deployable methods are gaining traction. Techniques such as reverse transcription loop-mediated isothermal amplification (RT-LAMP) and recombinase polymerase amplification (RT-RPA) provide efficient and sensitive diagnostics, making them valuable tools for early detection of



OROV and similar viruses in remote or underserved areas (8,9). Suggestion: These techniques should be thoroughly evaluated for sensitivity and specificity before being implemented in diagnostic settings to ensure their reliability and accuracy.

- 7) Conclusion - To consider: Entomological vector surveillance is, in my view, a key element for enabling coordinated public health responses.
- 8) Figure - Suggestion: Change 'via mosquito bites' to 'via vector bites' in the figure, since the primary reported vector, *Culicoides paraensis*, is not a mosquito. To consider: Although Oropouche virus has been detected in saliva and this sample type shows great potential as a diagnostic tool, its use has not yet been systematically evaluated for clinical application. Further studies are needed to validate its performance. Saliva could serve as an alternative specimen in situations where serum samples are unavailable.

▪ ¿Publicaría usted este artículo? **Señale** una de las opciones que se mencionan:

- **Aceptado con correcciones**
- Rechazado en su presentación preliminar pero puede ser aceptado con correcciones mayores
- Rechazado

Obs: Reforzar la justificación de la población en estudio de manera dar relevancia a los resultados.

SEGUNDA RONDA

COMENTARIOS FINALES.

- The suggestions have been duly considered in the revised version of the manuscript.

¿Publicaría usted este artículo? **Señale** una de las opciones que se mencionan:

Aceptado x

Conflictos de interés: NINGUNO.

Evaluadora: Fátima Cardozo. <https://orcid.org/0000-0001-8290-4625>