Oropouche Virus Genome in Semen and Other Body Fluids from Traveler

Zsófia Iglói, Widia Soochit, Bas B. Oude Munnink, Adam A. Anas, Karin J. von Eije, Anne van der Linden, Martijn Mandigers, Koen Wijnans, Jolanda Voermans, Felicity D. Chandler, Annemiek A. van der Eijk, Corine GeurtsvanKessel, Richard Molenkamp, Reina S. Sikkema, Babs Verstrepen, Marion Koopmans

Author affiliations: Erasmus Medical Center, Rotterdam, the Netherlands (Z. Igloi, W. Soochit, B.B. Oude Munnink, A.A. Anas, K.J. von Eije, A. van der Linden, M. Mandigers, K. Wijnans, J. Voermans, F.D. Chandler, A.A. van der Eijk, C. GeurtsvanKessel, R. Molenkamp, R. S. Sikkema, B. Verstrepen, M. Koopmans); World Health Organization Collaborating Centre for Arbovirus and Haemorrhagic Fever Reference and Research, Rotterdam (Z. Igloi, B.B. Oude Munnink, C. GeurtsvanKessel, R. Molenkamp, R.S. Sikkema, B. Verstrepen, M. Koopmans)

DOI: https://doi.org/10.3201/eid3101.241452

To the Editor: We read with interest the article by Castilletti et al. that showed prolonged shedding of Oropouche virus (OROV) in various body fluids (1). In addition, the authors isolated OROV from semen of 1 patient. The findings of that report coincide with multiple relevant findings, including our similar observation and findings of OROVspecific IgM in 6 of 68 newborns with microcephaly (2) and of OROV vertical transmission resulting in fetal death (3).

Using real-time reverse transcription PCR (RT-PCR), we detected OROV infection in a male patient returning to the Netherlands from Cuba in August 2024 (4). We also detected OROV seroconversion by using in-house methods and excluded dengue virus infection. The patient recovered without complications and agreed to donate follow-up samples (i.e., urine, blood, feces, and semen). OROV genome was still detectable by real-time RT-PCR in all samples except feces up to 32 days after symptom onset, which is longer than was generally described (5) before the article published by Castilletti et al. (1). RT-PCR cycle threshold (Ct) values in all specimens gradually increased, and thus viral load reduced over time. Urine and semen samples obtained 17 and 32 days after symptom onset had the lowest Ct values (Ct 21.8 for urine and 25.5 for semen on day 17, and 24.7 for urine and 29.8 for semen on day 32), but virus culture was unsuccessful. We obtained near full-length genomes from serum, urine, and semen at both time points by using amplicon-based Nanopore sequencing (6) (GenBank accession nos. PQ572768–PQ572779). Moreover, the partial sequence obtained from the later semen sample contained 2 single-nucleotide polymorphisms in the large segment, which may indicate prolonged virus replication in the immune-privileged testis.

The increasing evidence that OROV infection during pregnancy can affect fetal development is concerning. Although sexual transmission of OROV has yet to be fully studied, our findings, along with those of Castilletti et al., indicate potential. However, the outbreak, although slowing, is still ongoing in Central and South America.

Acknowledgments

We are very grateful to the patient who consented to participate in this study.

The patient was included in the iMONSTER study of the Viroscience department, Erasmus Medical Center. Clearance was received from the ethics committee of the Erasmus Medical Center (MEC-2020-0966). Informed consent, also for publishing findings, was received from the patient.

No specific funding was obtained or used for this study. The authors declare no conflict of interest.

Patient contact and diagnostic evaluation were conducted by Z.I., W.S., A.A., K.E., A. v.d.L., M.M., J.V., R.M., C.G., and B.V. Genomic sequencing and serology development were performed by B.O.M., A.v.d.L., K.W., R.S., and F.C. Z.I. conceptualized the manuscript and leads the iMON-STER study. All authors were

involved in the discussions and critical appraisal of the manuscript and approved the final version for submission.

References

- Castilletti C, Huits R, Mantovani RP, Accordini S, Alladio F, Gobbi F. Replication-competent Oropouche virus in semen of traveler returning to Italy from Cuba, 2024. Emerg Infect Dis. 2024;30:2684–2686. https://doi.org/10.3201/ eid3012.241470
- das Neves Martins FE, Chiang JO, Nunes BTD, Ribeiro BFR, Martins LC, Casseb LMN, et al. Newborns with microcephaly in Brazil and potential vertical transmission of Oropouche virus: a case series. Lancet Infect Dis. 2024;S1473-3099(24)00617-0. https://doi.org/10.1016/ S1473-3099(24)00617-0
- Garcia Filho C, Lima Neto AS, Maia AMPC, da Silva LOR, Cavalcante RDC, Monteiro HDS, et al. A case of vertical transmission of Oropouche virus in Brazil. N Engl J Med. 2024;NEJMc2412812. https://doi.org/10.1056/ NEJMc2412812
- 4. Naveca FG, Nascimento VAD, Souza VC, Nunes BTD, Rodrigues DSG, Vasconcelos PFDC. Multiplexed reverse

COMMENT LETTERS

transcription real-time polymerase chain reaction for simultaneous detection of Mayaro, Oropouche, and Oropouche-like viruses. Mem Inst Oswaldo Cruz. 2017;112:510–3. https://doi.org/10.1590/0074-02760160062

- Cardoso BF, Serra OP, Heinen LB, Zuchi N, Souza VC, Naveca FG, et al. Detection of Oropouche virus segment S in patients and in *Culex quinquefasciatus* in the state of Mato Grosso, Brazil. Mem Inst Oswaldo Cruz. 2015;110:745–54. https://doi.org/10.1590/0074-02760150123
- Naveca FG, Almeida TAP, Souza V, Nascimento V, Silva D, Nascimento F, et al. Human outbreaks of a novel reassortant Oropouche virus in the Brazilian Amazon region. Nat Med. 2024. https://doi.org/10.1038/s41591-024-03300-3

Address for correspondence: Zsòfia Iglòi, Nb1052 Clinical Virology, Erasmus MC, Doctor Molewaterplein 40, 3015 GD Rotterdam, the Netherlands; email: z.igloi@erasmusmc.nl

Case Report of Leprosy in Central Florida, USA, 2022

Austin B. Auyeung, Saphra Sohail, Marie Kima

Author affiliation: HCA North Florida Hospital, Gainesville, Florida, USA

DOI: https://doi.org/10.3201/eid3101.231370

To the Editor: We read with interest about the leprosy case in central Florida, USA, described by Bhukhan et al. (1). We report a similar case of leprosy (also known as Hansen disease), diagnosed in

a 55-year-old female patient in northern Florida, that exhibited tuberculoid features. *Mycobacterium leprae* was detected by PCR in multiple biopsied lesions, confirming the diagnosis.

The patient manifested multiple macules and patches with central clearance and erythematous borders without hypoesthesias on the right arm and shoulder (Figures 1, 2). She denied having fever, chills, or abdominal pain but reported right knee pain and swelling, suggestive of arthritis, which is not uncommon in patients with leprosy. We prescribed monthly doses of 600 mg rifampin, 400 mg moxifloxacin, and 100 mg minocycline. We



Figure 1. Leprosy lesions in a 55-year-old female patient in north Florida, USA. Multiple hypopigmented plaques with erythematous borders appeared along the right posterior forearm (A), right forehead (B), right trapezius (C), and left posterior forearm (D).



Figure 2. Histologic analysis of skin biopsies from a 55-yearold female patient with leprosy in north Florida, USA. Skin biopsies from right proximal ventral forearm (A) and left distal dorsal forearm (B) underwent hematoxylin and eosin staining. Arrows indicate areas of dermal granulomatous inflammation. Original magnification ×100.