lineages are widespread and common in northern England. Furthermore, the considerable sequence divergence between samples in Cheshire and Northumberland is consistent with a long-standing endemicity in northern England. Given that PUUV has never been recorded in the United Kingdom (2,10), the possibility should be considered that a Tatenale-like virus could have been responsible for some of the HFRS cases that have occurred here. More studies are needed to confirm whether other common rodents in the United Kingdom are hosts for this virus and to further characterize its phylogenetic relationships and zoonotic potential. Cross-reactivity of the sera from Tatenale-like virus–infected individuals to antigens of other relevant hantaviruses should be determined to inform future serologic surveys and the diagnosis of human HFRS cases.

Acknowledgments

We thank Rebecca Barber, Lukasz Lukomski, Steve Price, and Ann Lowe for their assistance.

This work was funded by the Natural Environment Research Council, United Kingdom (research grant NE/L013517/2).

Ms. Thomason is a doctoral student at the School of Environment and Life Sciences at the University of Salford, Manchester, United Kingdom. Her interests are in the ecological dynamics of infectious disease in wildlife.

References


Francesca Colavita,1 Mirella Biava,1 Concetta Castilletti, Serena Quartu, Francesco Vairo, Claudia Caglioti, Chiara Agrati, Eleonor Lalle, Licia Bordi, Simone Lanini, Michela Delli Guanti, Rossella Miccio, Giuseppe Ippolito, Maria R. Capobianchi, Antonino Di Caro; and the Lazzaro Spallanzani Institute for Research and Health Care Ebola Virus Disease Sierra Leone Study Group2

Author affiliations: Lazzaro Spallanzani Institute for Research and Health Care Ebola Virus Disease Sierra Leone Study Group2

Address for correspondence: Joseph A. Jackson, University of Salford, School of Environment and Life Sciences, Peel Building, Salford M5 4WT, UK; email: J.A.Jackson@Salford.ac.uk

The recent Ebola outbreak in West Africa caused breakdowns in public health systems, which might have caused outbreaks of vaccine-preventable diseases. We tested 80 patients admitted to an Ebola treatment center in Freetown, Sierra Leone, for measles. These patients were negative for Ebola virus. Measles virus IgM was detected in 13 (16%) of the patients.

The Ebola virus disease (EVD) outbreak in West Africa during 2013–2016 was one of the worst public health disasters in recent history; it caused >28,646 cases and 11,323

1These authors contributed equally to this article.

2Members of this group are listed at the end of this article.
We analyzed 80 patients, of whom 27 were \( \geq 8 \) years of age and \( \leq 25 \) years of age (median age 30 years) during December 2014–June 2015, who had fever (temperature \( \geq 37.5^\circ C \)) and diarrhea or vomiting. Only 1 patient had a history of rash. Measles virus IgM was detected by using an indirect immunofluorescence assay for 13 patients (16%), most (69%) of whom were in this age group (\( p<0.001 \)). Although we could not determine whether measles IgM in these patients was caused by vaccination failures during the outbreak or failures of the Expanded Programme on Immunization, this age distribution might be indicative of non-effective immunization campaigns, especially a deficiency in the healthcare system in detecting and reporting measles cases.

The recent EVD outbreak caused breakdowns of healthcare systems in the affected countries, leading to possible secondary outbreaks (2,3). A higher risk for vaccine-preventable diseases, in particular measles, is often an early result in interruption in delivery of public health services. Recent studies have shown that the increase in measles cases during the EVD outbreak in 2013–2016 was caused by disruption of vaccination programs and underreporting of measles cases, which is probably related to effects of EVD on healthcare systems (9).

Our results for samples obtained from Ebola-negative patients showed a high number of measles infections during the outbreak in different age groups. Although few (\( n = 80 \)) patients have been tested, our results provide useful insights into measles cases during other outbreaks in different age groups, adding new evidence from a study that focused on children (9).

Our findings indicate the need for correct and rapid differential diagnoses during such outbreaks to avoid spread of other infectious diseases. Furthermore, local public health systems should be strengthened in those countries that are now recovering from the EVD outbreak to reduce risks for other infectious diseases outbreaks.

Members of the Lazzaro Spallanzani Institute for Research and Health Care Ebola Virus Disease Sierra Leone Study Group: Antonella Vulcano, Francesca Colavita, Carolina Venditti, Paola Zaccaro, Antonio Mazzarelli, Concetta Castilletti, Angela Cannas, Serena Quarta, Sabrina Coen, Silvia Meschi, Claudia Minosse, Roberta Chiappini, Mirella Biava, Maria Beatrice Valli, Germana Grassi, and Daniele Lapa.

Acknowledgments
We thank Italian Ministry of Health (Ricerca Corrente and Ricerca Finalizzata) for supporting deployment of laboratory personnel; the Sierra Leone Ministry of Health and Sanitation, the Pharmacy Board of Sierra Leone, and the Sierra Leone National Laboratory Service for collaborating in overall laboratory activities implemented in the laboratory at the Princess Christian Maternity Hospital (Freetown, Sierra Leone).
Angiostrongylus cantonensis
Meningitis and Myelitis, Texas, USA

Roukaya Al Hammoud, Stacy L. Nayes,
James R. Murphy, Gloria P. Heresi, Ian J. Butler,
Norma Pérez

Author affiliation: McGovern Medical School, University of Texas Health Science Center at Houston, Houston, Texas, USA
DOI: https://dx.doi.org/10.3201/eid2306.161683

In summer 2013, a previously healthy Caucasian 12-month-old girl was brought for treatment to a children’s hospital in Houston, Texas, USA, on the 11th day of illness (day 11), manifesting intermittent fever, lethargy, and emesis. She had been evaluated by a pediatrician on day 3 and diagnosed with presumed viral infection. She attended day care, had no history of sick contacts, and apart from dogs in the house, had no notable other exposures.

At hospital admission, physical examination showed vital signs within reference ranges, mild distress, lethargy, and irritability with no focal deficits or signs of meningeal irritation. Blood test results showed leukocytosis (17,900 cells/mm³ with 20% eosinophils). Cerebrospinal fluid (CSF) examination showed 8 erythrocytes and 568 leukocytes/mm³ with 26% eosinophils. Results of bacterial cultures and PCR of CSF for herpes simplex virus and enterovirus were negative. She had no serologic evidence of acute infection with West Nile virus or HIV. Magnetic resonance imaging (MRI) of the brain showed normal results. She received ceftriaxone, vancomycin, and acyclovir from days 11 through 15 with no clinical improvement.

On day 16, because the child had been exposed to dogs, she was empirically treated for presumed *Toxocara* infection with albendazole and prednisone for 5 days. Her clinical

References


Address for correspondence: Antonino Di Caro, Laboratory of Virology, Lazzaro Spallanzani Institute for Research and Health Care, Via Portuense 292, 00149 Rome, Italy; email: antonino.dicaro@inmi.it