Lassa fever in travelers

Sources:

CDC https://dx.doi.org/10.3201/eid2502.180836
https://www.who.int/emergencies/diseases/lassa-fever/geographic-distribution.png?ua=1


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Originally discovered in 1969, Lassa fever is a rodent borne viral hemorrhagic fever endemic to West Africa and caused by Lassa virus. The clinical course of Lassa fever is either not recognized or mild in 80% of patients; however, ~20% of patients might experience a severe disease, including facial swelling, hepatic and renal abnormalities, pulmonary edema, and hemorrhage. Diagnosis of Lassa fever in patients arriving from West Africa might be challenging for healthcare providers unfamiliar with the spectrum of its clinical presentation, a challenge that is also common to the consideration of other viral hemorrhagic fevers in returning travelers. Additionally, although Lassa virus is not transmitted through casual contact, contact-tracing investigations of returning case-patients have often been large in scale.


During 1969–2016, a total of 33 patients traveling from 7 West Africa countries to 9 other countries were diagnosed with Lassa fever (https://wwwnc.cdc.gov/eid/article/25/2/18-0836-techapp1.pdf). Eleven patients were healthcare workers working in West Africa with either known or suspected exposures to Lassa fever patients; 4 patients had known exposure to rodents or history of travel to rural areas in West Africa. The only known risk factor for 18 patients was living in or traveling to West Africa. No reports of Lassa virus PCR testing performed on any patient before 2000 were found; however, 9 of 16 patients (56%) in 2000 and later years had a positive Lassa virus PCR test within 1–2 days of hospital admission.

Only 2 cases of secondary transmission of Lassa virus occurred, both in Germany. Neither of the source case-patients for these 2 patients was isolated. The first instance of transmission occurred to a physician who performed a physical examination, obtained intravenous access, and obtained blood samples from a Lassa fever patient without wearing any personal protective equipment. The second instance of secondary transmission, reported in 2016, occurred in a mortician who handled the body of a healthcare worker who was evacuated from Togo to Germany and diagnosed with Lassa fever retrospectively. The mortician reported wearing 2 pairs of gloves when handling the corpse but did not wear an apron or a facial mask.

Samples of patients with suspected Lassa fever should be obtained as early as possible and tested by Lassa virus PCR at a national or international reference laboratory. Contact tracing investigations
frequently involved hundreds of contacts and a substantial investment of time and labor on the part of public health teams.

The WHO map of Lassa fever affected countries 1969-2018 can be accessed at: https://www.who.int/emergencies/diseases/lassa-fever/geographic-distribution.png?ua=1

Currently an outbreak of Lassa fever is ongoing in Nigeria. In the last reporting week ending on the 17th February 2019, 25 new confirmed cases of Lassa fever were reported. So far, a total of 355 confirmed cases with 75 deaths have been recorded between January 1st and February 17th, 2019 from 20 states across 57 Local Government Areas. Over the past three weeks, there has been a downward trend in new cases. The number of new cases being reported are lower, compared to the same period during the 2018 outbreak. On 22 January 2019, the Nigeria Center for Disease Control (NCDC) declared the outbreak an emergency.

Comment

Due to the increase in air travel and sometimes prolonged incubation times (up to 21 days for Lassa fever) the import of unusual pathogens is likely to increase in Europe. The clinical diagnosis is difficult and the suspicion normally arises only if an accurate anamnesis is made that includes travel history. Laboratory diagnosis requires the support of specialized centers and can be improved by a syndromic approach to etiological diagnosis, guided by clinical and epidemiological data. However, rapid diagnosis remains crucial in order to promptly adopt appropriate infection control procedures and reduce health-care workers’ exposure, and to carry out contact tracing procedures.

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