Deadly new Ebola-like disease emerges in Bolivia

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(HealthDay)—A deadly South American virus that causes Ebola-like

bleeding can spread human-to-human, public health officials have learned from its second-ever outbreak.

Public health investigators have reconstructed the path by which the Chapare virus spread from person to person during a 2019 outbreak in Bolivia, leaping from the initial patient to several health care workers.

But while the rodent-borne Chapare virus is highly lethal—killing three of the five confirmed patients in the latest outbreak—the pathogen poses very little risk to people in North America, experts said.

"This virus is not one we think is going to really be a major threat to the United States," said Dr. Dan Bausch, president-elect of the American Society of Tropical Medicine and Hygiene. "The virus is important to understand for people who might be traveling in this area of Bolivia, important to understand for people living in that area of the world, and to our greater understanding of these types of viruses, but not something your average person in the U.S. needs to be worried about."

The virus first emerged in 2004, in the Chapare province of Bolivia, about 370 miles east of the country's capital city, La Paz. There was a small cluster of illnesses in that first outbreak, but only a single confirmed case, researchers said in background notes.

The Chapare virus belongs to a different viral family from Ebola, but both can cause hemorrhagic fever in the infected.

In the case of Chapare virus, symptoms can include fever, headache, abdominal pain, rash, and bleeding of the gums, researchers noted. Hemorrhagic fevers ultimately can cause life-threatening organ failure and bleeding.

There is no treatment for Chapare virus, outside of IV fluids and

supportive care.

The second outbreak started with a 65-year-old rice farmer who likely caught Chapare virus through contact with rat urine or droppings, said lead researcher Dr. Caitlin Cossaboom, an epidemiologist with the U.S. Centers for Disease Control and Prevention's Division of High Consequence Pathogens and Pathology.

Cossaboom reported on the new outbreak Monday at the American Society of Tropical Medicine and Hygiene's annual meeting. Such research is considered preliminary until published in a peer-reviewed journal.

A 25-year-old doctor caring for the farmer at a hospital in the village of Caranavi was next infected, the investigation revealed.

"The night before he died, she suctioned saliva from his mouth, and then she fell ill nine days later," Cossaboom explained.

A 48-year-old paramedic working in an ambulance that transported the doctor to a La Paz hospital then became the next person in the chain of infection.

"When she was in the ambulance, she needed CPR," Cossaboom said of the doctor. "The ambulance worker that performed CPR on her 16 days later developed symptoms."

When the doctor arrived in La Paz, a gastroenterologist performed an endoscopy on her as part of her treatment—a procedure in which a small camera is snaked into the mouth to examine a person's upper GI tract.

The gastroenterologist developed symptoms 14 days later, Cossaboom said.

"In all of those cases, we have definitive evidence of exposure to bodily fluids," Cossaboom said.

The initial patient, the village doctor and the gastroenterologist all died from Chapare virus. The ambulance medic and a fifth patient—a farm worker also from Caranavi—survived their infection.

Bolivian health officials investigating the outbreak trapped rats in Caranavi, and genetic testing showed that the rats carry the Chapare virus, Cossaboom said.

The species are the pygmy rice rat and the small-eared pygmy rice rat, and they are found across Bolivia and several neighboring countries, researchers said.

South American countries adjacent to Bolivia should be on the lookout for potential Chapare virus outbreaks where these mouse species are common, Cossaboom said.

Scientists suspect Chapare virus might have been circulating in Bolivia for years now, but infected patients may have been wrongly diagnosed with dengue, a mosquito-borne viral infection that is common in the region.

"This really raises the importance of improving surveillance for Chapare virus and other arenaviruses in South America, because they look like other very common diseases like dengue," Cossaboom said. "In these cases, the initial patients were assumed to have dengue, because their clinical signs looked just like dengue. The difference is that dengue can't be transmitted human-to-human."

Arenaviruses are very vulnerable to heat and disinfectants like alcohol, Bausch said.

"It might be in the rice before you cook it, and if you're the preparer of rice that's contaminated with rodent urine you can get infected, but if you're the consumer of the hot rice once it's cooked, that's really not the risk," Bausch said.

Other known arenaviruses include dangerous pathogens such as Lassa virus, which causes thousands of deaths annually in West Africa, and Machupo virus, which has caused deadly outbreaks in Bolivia, researchers said.

Outside of someone contracting Chapare virus in South America and then traveling home, there's not much risk of an outbreak in the United States anytime soon, Bausch and Cossaboom said.

That's because the pygmy rice rats that harbor Chapare virus are not typically located as far north as the United States, they said.