

The worst is yet to come: New virus even deadlier than Ebola, Zika may emerge, warn Swiss scientists

In 2014, the Ebola virus outbreak killed more than 11000 people in Africa. This year, the Zika virus is currently affecting millions of people and even unborn children in South America, prompting the declaration of a public health emergency by the World Health Organization (WHO).

In a study published last week in the journal *Proceedings of the National Academy of Sciences*, Swiss scientists warned that a deadlier virus may emerge, causing more illnesses and deaths.

According to a report on WND.com, the Swiss scientists described the virus as something similar to the one which causes severe acute respiratory syndrome (SARS), which killed over 700 people during an outbreak in southern China from November 2002 to July 2003.

The virus, which is called 'WIV1-CoV', may come from zoonotic sources, meaning it may be transmitted from animals to human beings. It is likely to exhibit flu-like symptoms which will eventually escalate into pneumonia.

'Focusing on the SARS-like viruses, the results indicate that the WIV1-coronavirus (CoV) cluster has the ability to directly infect and may undergo limited transmission in human populations,' the researchers wrote in their study.

Lead researcher Dr. Vineet Menachery of Department of Epidemiology, University of North Carolina at Chapel Hill explained that the transmission of this new virus to humans is not yet a certainty, but if it happens, the scenario is discouraging.

'This virus may never jump to humans, but if it does, WIV1-CoV has the potential to seed a new outbreak with significant consequences for both public health and the global economy,' the lead scientist explained.

Menachery added that the capacity of the WIV1-CoV to jump from animals such as bats to human is 'greater' than originally thought.

'While other adaptations may be required to produce an epidemic, several viral strains circulating in bat populations have already overcome the barrier of replication of human cells and suggest re-emergence as a distinct possibility,' the researcher said.

Non-travel-associated Middle East Respiratory Syndrome in Kenya

Scientists studying the zoonotic disease caused by the Middle East respiratory syndrome coronavirus (MERS-CoV) have focused largely on camels, one confirmed animal reservoir of the pathogen. Researchers have also found evidence to suggest the virus may have originated in bats. But a recent finding — MERS antibodies in two people who handle non-camel livestock in northeast Africa — reinforces the idea that camels and bats may not be the only animal reservoirs of MERS-CoV, and suggests that the virus may be endemic to another region, beyond its namesake.

Researchers at the Kenya-based International Livestock Research Institute (ILRI) and at the University of

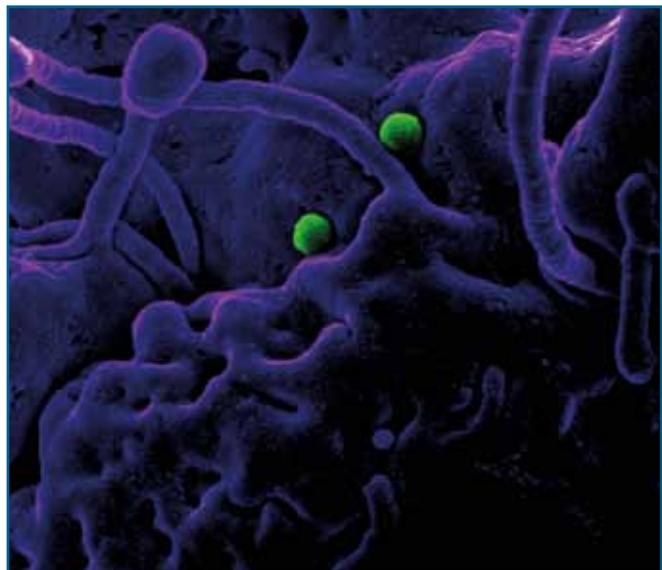


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Bonn Medical Centre in Germany have found evidence of MERS-CoV antibodies in archived blood samples from two of 1122 Kenyan livestock handlers, collected between 2013 and 2014. Both people whose blood showed signs of past MERS-CoV infection — a 26-year-old woman and 58-year-old man — were asymptomatic and kept livestock other than camels, the researchers report in May 2016's issue of *Emerging Infectious Diseases* (http://wwwnc.cdc.gov/eid/article/22/6/16-0064_article?platform=hootsuite).

While there have been confirmed cases of MERS outside the Middle East, all of these to date have been linked to people who had travelled to the affected area. This study is the first to report non-travel-associated cases of MERS-CoV infection in Africa.

'The absence of autochthonous human MERS-CoV infections in Africa has triggered hypotheses regarding differences in disease transmission between Africa and the Arabian Peninsula, and has raised doubts regarding the role of camels as a source of infection,' the researchers wrote in their paper. 'Our study provides evidence for unrecorded human MERS-CoV infections in Kenya and the proportion of seropositive specimens that we found is comparable to previously reported proportions of unrecorded infections in the general population in Saudi Arabia.'

The finding provides additional clues for epidemiologists studying the origins and spread of MERS. 'The presence of antibodies in two people in Kenya suggests that the disease may have been endemic in the area since time immemorial,' said Kenneth Mbai, a lecturer in veterinary medicine at University of Nairobi, who was not involved in the research.

Thomas Manga, an assistant director of veterinary services in Kenya's livestock development ministry, said additional evidence for this immunity hypothesis is needed. 'The presence of antibodies to the virus indicates that the people were infected with the virus sometime in the past and... is not necessarily associated with clinical disease,' said Manga, who was not involved in the research.