

Alkhurma Hemorrhagic Fever in Saudi Arabia

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[Karen Hunter] Hello, I'm Karen Hunter. With me today is Dr. Adam MacNeil, an epidemiologist in the Centers for Disease Control and Prevention's Viral Special Pathogens Branch. We're talking about a paper that appears in the December 2010 issue of the CDC's journal, *Emerging Infectious Diseases*. The article looks at the severity and risk factors for Alkhurma Hemorrhagic Fever in humans in Saudi Arabia. Welcome, Dr. MacNeil.

[Adam MacNeil] Hello, Karen.

[Karen Hunter] Let's start by talking about this illness and how it affects people.

[Adam MacNeil] Well, Alkhurma Hemorrhagic Fever is a viral illness. We believe most people who become infected develop a general set of symptoms, such as fever, tiredness, muscle aches, vomiting, diarrhea, and possibly rash. Occasionally, there are severe instances of infection in which people can develop bleeding manifestations, neurologic symptoms, or even possibly death.

[Karen Hunter] Alkhurma Hemorrhagic Fever is named after the region in Saudi Arabia where it was first discovered. This paper looks at risk factors for infection in an area of southern Saudi Arabia, known as Najran city. What did you find?

[Adam MacNeil] Well, in this study, we compared characteristics of people who had evidence of infection to people who did not have any evidence of being infected with the virus, and we found that people who had evidence of infection with the virus were more likely to handle farm animals, to have had bites from ticks, as well as possibly consumed unpasteurized milk.

[Karen Hunter] Prior to this study, it was believed that this illness killed up to a quarter of those infected. What did your study find in terms of the severity of illness?

[Adam MacNeil] When we started looking at people who we knew were infected with the virus and traced some of their family members, we in fact found that there were a number of people who had evidence of infection but did not report any symptoms of illness. So we do think in fact that possibly there are a number of infections that occur in humans with mild or possibly even no symptoms.

[Karen Hunter] Your study mentions there is a positive relationship between contact with animals, especially sheep, and this illness. Tell us more about that.

[Adam MacNeil] We currently don't know the reservoir of the virus, or where it resides in nature. We do believe that the virus may travel through ticks to people but we don't know where else it lives in nature. In this study, we found that a large proportion of people who had evidence of infection with the virus did in fact own or raise domestic animals, and in fact all the people who reported owning domestic animals had sheep.

[Karen Hunter] What other factors put people at risk for this illness?

[Adam MacNeil] We know that the virus can be found in ticks, so we do believe that tick bites are a risk factor for developing infection. In addition, we do have some preliminary evidence that suggests that possibly the virus can be acquired through consumption of unpasteurized milk from farm animals.

[Karen Hunter] Is this virus transmitted person-to-person?

[Adam MacNeil] Well, we cannot definitively rule out the possibility, but currently we have no evidence to suggest the virus is transmitted person-to-person. Also, we have no evidence of this virus being transmitted in health care settings. So currently, we believe that infections probably only occur through tick bites or through contact with farm animals or possibly consumption of unpasteurized milk.

[Karen Hunter] What can people, especially travelers to Saudi Arabia, do to help protect themselves from Alkhurma Hemorrhagic Fever?

[Adam MacNeil] Since the virus is found in ticks, if people are traveling to rural areas where they may have contact with ticks, we advise they wear protective clothing, as well as consider sprays or repellants to keep ticks off. In addition, we suggest they avoid contact with farm animals, particularly slaughtering farm animals. And finally, if they do become sick, we suggest they seek medical attention and see a doctor.

[Karen Hunter] Thanks, Dr. MacNeil. I've been talking with CDC's Dr. Adam MacNeil about a paper that appears in the December 2010 issue of CDC's journal, Emerging Infectious Diseases. You can see the article, plus a related article about two travelers bringing the disease into Italy, online at www.cdc.gov/eid.

If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. I'm Karen Hunter, for Emerging Infectious Diseases.

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