Crimean-Congo Hemorrhagic Fever

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By: Reuben Ninan

Introduction
The Crimean-Congo Hemorrhagic Fever (CCHF) is a tick-borne infectious viral disease in the family Bunyaviridae. The disease was first characterized in the Crimea in 1944 and given the name Crimean hemorrhagic fever. CCHF was then later recognized in 1969 as the cause of illness in the Congo, thus resulting in the current name of the disease. CCHF causes severe viral hemorrhagic fever outbreaks (CDC, 2014).

Location
Crimean-Congo hemorrhagic fever is found in Eastern Europe, particularly in the former Soviet Union, throughout the Mediterranean, in northwestern China, central Asia, southern Europe, Africa, the Middle East, and the Indian subcontinent (CDC, n.d.).

Transmission
The CCHF virus is transmitted to people either by tick bites or through contact with infected animal blood or tissues during and immediately after slaughter. Human-to-human transmissions occurred with contact with secretion, blood, organs, or any other bodily fluids of an infected body. Hospital-acquired infections can also occur due to improper sterilization of medical equipment, reuse of needles and contamination of medical supplies (WHO, n.d.).

Symptoms
The onset of CCHF is sudden, with initial signs and symptoms including headache, high fever, back pain, dizziness, neck pain and/or stiffness, sore eyes, photophobia (sensitivity of light), joint pain, stomach pain, and vomiting. Red eyes, a flushed face, a red throat, and petechiae (red spots) on the palate are common. Symptoms may also include jaundice (yellow color of the skin, mucus membranes, or eyes), and in severe cases, changes in mood and sensory perception (NCBI, n.d.).

As the illness progresses, large areas of severe bruising, severe nosebleeds, and uncontrolled bleeding at injection sites can be seen, with fatality rates in hospitalized patients have ranged from 9% to as high as 50% (NCBI, n.d.).

Treatment
Being bitten by ticks, 61.3% stated they could recognize ticks and 56.1% stated that not all tick bites cause the disease. Seventy-seven point eight percent stated CCHF is a virulent disease, 33.1% stated it can be transmitted from human to human and 30.3% stated it can be transmitted from animals to humans. (NCBI, February 11, 2015). Because CCHF is a virus of the Bunyaviridae family or of any other virus, there is no absolute cure but instead just intensive supportive care. The antiviral drug called ribavirin has been used in the treatment of CCHF patients reportedly with some benefit (WHO, n.d.).

Protection
Protection of exposed skin around other infected animals or other humans are the only option. Insect repellant is may be used for the protection against CCHF. Individuals should also avoid close contact with the blood and body fluids of livestock or humans who show symptoms of infection. An inactivated, mouse-brain derived vaccine against CCHF has been developed and is used on a small scale in Eastern Europe. However, there is no safe and effective vaccine currently available for human use (CDC, 2014).