

Crimean-Congo Haemorrhagic Fever: A Potentially Fatal Outbreak in Pakistan

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Africa, the Balkans, parts of the Middle East, and Asia are endemic for tick-borne Crimean-Congo hemorrhagic fever (CCHF)¹. The disease is more common in persons infected with Hyalomma ticks or who come in contact with sick cattle tissues after slaughter². The virus, which has a high case-fatality rate, can cause epidemics in anyone who comes across infected bodily fluids and has caused health facility outbreaks.³The four illness load in Pakistan includes transmissible, not transmissible, mental disorders, and accidents. Additionally, some rising health problems are straining limited national healthcare resources. A good instance is Crimean-Congo Haemorrhagic Fever (CCHF). CCHF-endemic countries fight the infection. A World Health Organisation statement stated that roughly 212 instances, 27 of them life-threatening, were documented in Iraq in 2022 among different governorates. CCHF-free nations still test ticks for the disease⁴. The Ministry of Health in France found the very first CCHF in Hyalomma ticks from livestock in the southern Eastern Pyrenees⁵. Ticks have been reported in the Mediterranean coast, especially Corsica. Spain has documented domestically acquired illnesses in humans since 2016, including in medical practitioners⁶. The first documented CCHF patient in Pakistan was identified in 1976, with the following isolated instances and epidemics⁷. Another 14 outbreaks occurred from 1976 to 2010. Recent decades have seen an upsurge in the occurrence of this illness in Pakistan. Tick bites from virus-infected ticks produce occasional infections, typically in remote areas. Exposure to the bloodstream of sick animals can cause CCHF, particularly among slaughterhouse workers. Spread of a viral infection may take place via contacting the patient's body secretions⁸.

According to local press coverage and official internet posts, illness news monitoring groups stated over the weekend that a Crimean-Congo hemorrhagic fever (CCHF) epidemic in Pakistan's Balochistan region spread to healthcare workers, one of whom died.⁹The CCHF phase includes incubation, prehaemorrhagic, hemorrhagic and recovered phases. Incubation lasts 1-5 days following the tick bite and 5-7 days after exposure to infected blood or tissues. Individuals experience a rapid fever, fragility, headache, pain in the muscles, vomiting, severe facial and oropharynx hyperemia, a haemorrhagic rash with ecchymoses, and oozing from the nasopharynx, gastrointestinal system, and other parts of the body.¹⁰ Initial leukopenia and thrombocytopenia occur in the very first week. With growing hepatic inflammation, liver-associated enzymes, BUN, and creatinine rise, indicate renal failure. A blood specimen can be tested for viral RNA by PCR and specific to the virus IgM and/or IgG by ELISA or different techniques to make a confirmation¹¹.

Most CCHF illnesses are asymptomatic or cause a non-specific febrile illness that doesn't call for hospitalization or treatment. Current medical therapy supports the small proportion of individuals who experience hypotension and hemorrhage.¹²A rise in vascular permeability lowers the blood pressure and tissue perfusion, requiring the replacement of volume with intravenous fluids or careful surveillance to prevent pulmonary edema.¹³ Fresh frozen plasma and platelets can treat clotting problems, but

major bleeding requires a transfusion of blood. Immediate sickness treatment with ribavirin is good. CCHF vaccine development is underway¹⁴.

All stakeholders must maintain high levels of scepticism prompt diagnosis and therapy, and an intense emphasis on preventative to manage Crimean-Congo haemorrhagic fever. Prevention is the best way to deal with CCHF disease due to its high fatality. Those who handle livestock should resist insects on their skin and clothing. Gloves and other safety gear are advised. Plasma and body fluids of infected livestock or people ought to be avoided. Healthcare staff must practice preventative measures to avoid exposure in the workplace.

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