



Ebola Virus and Marburg Virus Causes and Treatment of the Marburg Virus

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DESCRIPTION

The Ebola virus (EBOV) and Marburg virus are both members of Filoviridae. As Marburg virus cases have started to increase, it is important to identify a treatment option before imposing another global quarantine. Other than providing affected individuals with lots of water due to heavy bleeding, there is no treatment for this virus. Although the Marburg and Ebola viruses are different from one another, they both induce clinically comparable illnesses marked by hemorrhagic fevers and capillary leakage. The Marburg virus is slightly more virulent than the Ebola virus. (Boudia S, 2007).

The Marburg virus has single stranded RNA and, like other Filoviridae viruses, is enclosed in helical capsids. Glycoproteins (GP) on the viral surface help that virus attach to host cells. That GP has two GP1 units that connect to the receptors on the host cell, and it also has GP2 units, which are trans membrane units that fuse the viral envelope with the endosome membrane. Muscle aches, haemorrhagic fever, headache, vomiting, diarrhoea, bleeding in various regions of the body, and a fatality rate of about 88% within 8–9 days due to dehydration are all symptoms of the Marburg virus. Even after they have recovered, infected

individuals might still spread the virus through their body fluids. Cases should be discussed with public health authorities, who can assist in all facets of management, deciding whether to pursue the diagnosis, arranging transport of samples for testing, treatment, including transport to selected centres and, when indicated, use of novel therapies, tracking contacts. Complete blood counts, common blood chemistries, liver and coagulation tests, and urinalysis are among the tests that are performed. Diagnostic tests include ELISA and RT-PCR. The gold standard is the identification of distinctive virions in infected tissue (particularly liver) or blood using electron microscopy.

Ebola virus isolates have been differentiated into 5 species, Zaire Ebola virus, Sudan Ebola virus, Tai Forest Ebola virus, Bundibugyo Ebola virus, Reston Ebola virus (which is present in Asia but does not cause disease in humans. Direct contact with the blood, body fluid, and tissues of animals is the first way the virus is transferred from animals to humans. Direct contact with the body fluids of a person who has the disease or has passed away from it can then transmit the Ebola virus to other people. This can happen if someone touches these infected objects or

infected body fluids. The virus then enters the body via rashes or damaged mucous membranes in the mouth, nose, or eyes. Through sexual contact with a person who has EVD or has recovered from it, the virus can be transmitted. After the disease has passed, the virus can persist in certain body fluids, like semen, after recovery from the illness. The virus can persist in certain body fluids, like semen, after recovery from the illness.

Treatment of Marburg supportive care, maintenance of blood volume and electrolyte balance, replacement of depleted coagulation factors, minimization of invasive procedures, treatment of symptoms, including use of analgesics. The Zaire Ebola virus causes the Ebola virus, which can be treated with two monoclonal antibodies. REGN-EB3 and mAb114 are these the three monoclonal antibodies atoltivimab, maftivimab, and odesivimab that make up REGN-EB3 were given the green light by the US Food and Drug Administration (FDA) in October 2020. A single monoclonal antibody called ansuvimab, or mAb114, Ebola outbreak, both of these therapies were shown to be successful, with cure rates of about 90% in patients with low virus levels (which suggests treatment was begun within the first few days after infection). Untreated and unvaccinated patients and is a significant improvement over previous experimental drugs for Ebola (ZMapp, remdesivir). Until the two monoclonal antibodies or others are shown to neutralize Marburg virus, there is still no effective treatment for that virus infection.

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