

SYMPTOMS

Rift Valley Fever [RVF] is an acute viral haemorrhagic disease, most commonly seen in domesticated farm animals, including cattle, sheep and goats. With an incubation period of 2-6 days, most cases are either asymptomatic or mild, exhibiting; **fever, weakness, muscle/joint pain and dizziness** ^[1]. The above will typically self-resolve within 2-7 days of onset; however, in up to 10% of cases, infection will also be accompanied by one or more severe complications including ^[1]:

- Ocular disease – most common complication, involving eye lesions causing decreased/blurred vision; developing 1-3 weeks following symptoms, then self-resolving in 10-12 weeks. Note that in 50% of cases, permanent visual loss is suffered. ^{[1][2]}
- Brain tissue inflammation – leads to headaches, seizures or coma; developing within 1-4 weeks of onset. This complication is rare, and death from it is even more rare, however one may suffer long-lasting neurological issues. ^[1]
- Haemorrhagic fever – leads to bloody stool and vomit, bleeding of mucous membranes and signs of jaundice; developing within 2-4 days of symptom onset. This is the most severe complication, with 50% of such cases passing away within 3-6 days. ^{[1][2]}



TRANSMISSION

Distribution and Spread

Found all throughout Africa, including West, East and South Africa, as well as Madagascar; with case outbreaks being reported also throughout other countries, including Kenya, Egypt, Saudia Arabia and Yemen ^[3]. Domestic ruminants are the main hosts, but disease can also be spread through wild ruminants; with *Aedes* and *Culex* species mosquitoes being responsible for cyclic transmission of disease ^[1]. Infection causes abortion of livestock pregnancies and the death of most infected young animals. Transmission to humans occurs either through infected mosquito bites, or more commonly, through direct contact with infected animal products or body fluids, especially foetal tissues ^[2]. RVF has not been documented to spread from one human to another, with no hospital-acquired infections being reported ^[1]. Note that the virus can also be transmitted through aerosol spread, however this is rare and typically specific to laboratories.

RECOMMENDATION

Treatment

As mentioned, the vast majority of cases are asymptomatic or if mild, are self-resolving. Supportive therapy is required for severe cases ^[3].

Prevention

Experimental vaccination is available but limited only to high-risk workers ^[3]. Main preventative measures include ^[3]:

- Mass animal vaccination prior to any epizootic transmission, thus preventing outbreaks
- Restricting or banning movement of livestock in case of ongoing outbreaks
- Practicing hand hygiene and wearing of gloves and other protective equipment, when handling animals, especially if sick
- Avoiding consumption of raw meats and animal products, cooking these to adequate temperatures
- Use of impregnated mosquito nets, insect repellents and long-sleeved clothing to prevent mosquito bites

1. Rift Valley Fever [Internet]. CDC. 2020. Available from: [https://www.cdc.gov/vhf/rvf/index.html#:~:text=Rift%20Valley%20fever%20\(RVF\)%20is](https://www.cdc.gov/vhf/rvf/index.html#:~:text=Rift%20Valley%20fever%20(RVF)%20is) (accessed August 22, 2023).
2. Rift Valley fever facts [Internet]. European Centre for Disease Prevention and Control. Available from: <https://www.ecdc.europa.eu/en/rift-valley-fever/facts> (accessed August 22, 2023).
3. Rift Valley fever [Internet]. WHO; 2018. Available from: <https://www.who.int/news-room/fact-sheets/detail/rift-valley-fever> (accessed August 22, 2023).

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