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RIFT VALLEY FEVER VIRUS INDUCE HEMORRHAGIC FEVER IN THE CENTRAL AFRICAN REPUBLIC


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ABSTRACT

Rift Valley fever virus (RVFV) is endemic in Central Africa. Though frequently isolated from select arthropod species, virus activity in humans and livestock populations has been low rarely exceeding a 4% antibody prevalence as measured by indirect immunofluorescence. Until recently, RVFV associated disease in the CAR has been characterized by a mild dengue-like syndrome; hemorrhagic disease has been rare. However, during the last three years, the majority (4/5) of the RVFV infections identified by virus isolations have resulted in fatal (3/4) hemorrhagic disease. All four severe cases presented with high fever, hemorrhagic gingivitis, upper and lower gastrointestinal tract bleeding and elevated prothrombin times. Liver biopsies revealed significant necrosis and diffuse hemorrhage. Followup studies in livestock herds demonstrated an increased enzootic RVFV activity resulting in an elevated antibody prevalence of 46% (14/30). Collectively, the results suggest the presence of a highly pathogenic human RVFV strain in the CAR; a virus strain capable of adversely acting hemostases. The recent surge of virus activity may be the direct results of the influx of livestock herds into the CAR.