

**Unveiling the threat: Balochistan's path to congo virus endemicity**

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*Dear Madam,* The detection of 16 cases of Crimean Congo Haemorrhagic Fever Virus (CCHFV) in the Balochistan province this year<sup>1</sup> and a 2020 study indicating a seroprevalence of 2.7% in humans and 36.2% in livestock in Pakistan, with Balochistan showing a significantly higher prevalence in the collected samples<sup>2</sup> has raised concerns about the region's susceptibility to becoming an endemic area for this tick-borne zoonotic disease.

Balochistan's arid climate creates an ideal environment for *Hyalomma Marginatum* ticks to thrive, thereby increasing the risk of transmission. Rural areas, which constitute a significant proportion of Balochistan, are generally more affected due to livestock farming, which plays a significant role in Pakistan's economy. However, urban areas in Pakistan experience higher infection rates during Eid-Ul-Adha when there is a large-scale animal trade, with increased incidence in high-risk groups, like butchers, veterinarians, and healthcare professionals. The region also encounters challenges due to the cross-border movement of livestock and infected individuals with neighbouring countries, like Afghanistan and Iran, where the virus is endemic.<sup>3</sup> Another contributing factor to the endemicity of the virus is the perception of neglect, resulting in limited resources, inadequate vector control and healthcare infrastructure, and insufficient awareness and preventive measures<sup>3</sup> which create significant obstacles in the early detection and management of virus-borne diseases.

A Bulgarian vaccine introduced in 1974 led to a decline in cases from 1974 to 1996, but there is insufficient statistical evidence to attribute this decline solely to the vaccine. Thus, there is no universally recognised vaccination available for the virus currently. However, researchers are working to create an effective vaccine.<sup>4</sup> Currently, treatment for CCHFV involves supportive care and

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antivirals, like ribavirin. Although treatments-FDA-approved treatments in use, including steroids, convalescent serum, and specific immunoglobulins, it's important to note that these treatments are experimental and require further evaluation of their efficacy and safety profile.<sup>5</sup>

The most effective approach to reducing the prevalence of CCHFV in Balochistan is through prevention methods, including raising awareness among high-risk groups, especially butchers who should wear appropriate protection, handle slaughter in designated areas, and ensure proper waste disposal.<sup>4</sup> It is also crucial to discourage tourists from visiting areas where ticks are prevalent, and local law enforcement should limit the unrestricted movement of livestock. Additionally, programmes should be introduced to vaccinate animals against the virus, and suspected animals should be quarantined.

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