

Effect of Epidemic Viral Haemorrhagic Fevers on Pregnancy Outcomes: A Literature Review and Meta-Analysis

Stefani Eames, Tabbasum Zaman, Joshua Odendaal, Bassel Wattar, Siobhan Quenby
University of Warwick

Background

The exponential rise in world population has facilitated the spread of zoonotic viral diseases. An example is viral haemorrhagic fevers (VHFs) typically occurring in the developing world. Pregnant women are thought to have worse experiences of viral diseases but their outcomes in VHFs are under-researched. This review aims to systematically review the literature on maternal and foetal outcomes in VHFs.

Methods

A literature search was performed on Medline, Embase, Cochrane (Central) and Health Technology Assessment Database. This yielded 7 studies for review. Data on maternal, obstetric, foetal and neonatal outcomes was extracted and synthesised via tabulation, weighted means and meta-analysis.

Results

There was a general paucity in outcomes reported. A non-significant increase in maternal death in VHF-positive women compared to non-pregnant controls was seen (Odds ratio = 1.28, 95% CI = 0.64, 2.55). Ebola Virus Disease (EVD)-positive women had a significantly higher rate of antepartum haemorrhage ($p=0.002$). Live birth rates were lower in women with EVD compared to Lassa fever (LF). The neonatal risk of death was not significantly different between EVD and LF, with little to no comparability.

Key Messages

VHF-positive pregnant women are at higher risk of maternal morbidity and obstetric haemorrhage compared to controls. Sub-Saharan Africa endures significant disease burden that stifles development, healthcare systems and medical research. The findings from this systematic review reflect the paucity and incompleteness of currently available evidence, highlighting the need for further vital research to avoid preventable maternal morbidity.

