Ebola in women - what the Ob-Gyns should know

This communication is not related to menopause *per se*, but refers to Ebola in women. West Africa is currently in the midst of the largest outbreak of Ebola virus disease in history. The Ebola epidemic seems to be expanding globally and is rapidly becoming a major threat. The Centers for Disease Control and Prevention (CDC) have now issued special instructions and guidance for obstetrician-gynecologists (ob-gyns) [1]. Although it is very unlikely that ob-gyns in most regions of the world will diagnose or treat a patient with Ebola virus disease, it is important that all health-care providers are prepared to evaluate and care for these patients. Specifically, US health-care providers, including ob-gyns, should ask patients about recent travel and should know the signs and symptoms of Ebola virus disease and what to do if assessing a patient with compatible illness.

Comment

Ebola virus disease is a rare but severe viral hemorrhagic fever that is caused by five different species of the virus. The virus species causing the current epidemic was first identified in 1976 in Zaire, but apparently was not getting enough international attention as it was limited to a very remote area. Ebola virus disease is a zoonotic infection for which the natural reservoir is thought to be fruit bats. Human disease occurs initially through direct contact with bats or their excretions or through contact with animals (e.g. great apes) that have been infected by bats. Once infection is established in humans, Ebola virus can be transmitted person-to-person by direct contact of skin or mucous membranes with blood or body fluids of infected patients, contaminated objects (e.g. needles), or the bodies of individuals who have died with Ebola virus disease. The incubation period ranges from 2 days to 21 days (typically 8-10 days), and infected persons become contagious once fever and symptoms appear. Infectiousness increases with illness severity. Ebola virus disease is characterized by non-typical symptoms, such as abrupt onset of fever, chills, malaise, myalgia, weakness, and fatigue. Gastrointestinal symptoms and multi-organ failure (including coagulopathy and hemorrhage) frequently occur. The case-fatality proportion in this outbreak is approximately 55-75%. Since there are no approved specific treatments for Ebola virus disease, the clinical management consists of supportive care, particularly fluid and electrolyte management, correction of coagulopathy, treatment of secondary infections, and management of other complications. In view of all the above, a critical element of the clinical management is prompt isolation and implementation of recommended infection-control measures. Because of the severity and potential impact of the current Ebola outbreak, several major medical journals have already issued relevant publications [2,3].

The rate of Ebola infection among women is outpacing that among men, probably because women are the caregivers, nurses and cross-border traders. Women are also the traditional birth attendants, nurses and the cleaners and laundry workers in hospitals, where there is risk of exposure. Women account for 55–60% of the deceased in the current epidemic in Liberia, Guinea and Sierra Leone. Understanding the role that gender plays in an Ebola epidemic is crucial so that communication and intervention strategies can be targeted. As for pregnant women, they might be at high risk because of increased contact with health services and health workers. However, there is only limited evidence to suggest that pregnant women are indeed at increased

risk for severe illness and death when infected with Ebola virus [1]. In addition, pregnant women with Ebola virus disease appear to be at an increased risk for spontaneous abortion and pregnancy-associated hemorrhage. Neonates born to mothers with Ebola virus disease have not survived. Another major issue relates to breastfeeding, which in resource-limited settings is the optimal method of infant feeding. Although Ebola virus has been detected in breast milk, it is unknown whether it can be transmitted from mothers to infants through breastfeeding, which nevertheless seems theoretically most likely.

At the moment, the Ebola virus disease for most of us is a virtual threat, yet it may become a global crisis within a relatively short period of time if the appropriate measures are not undertaken. Checking passengers at airports is already implemented, but all of us should exercise caution when seeing patients with 'flu-like' symptoms who have recently returned from West Africa, or were in close contact with another person that had just returned from West Africa.

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References

1. Jamieson DJ, Uyeki TM, Callaghan WM, Meaney-Delman D, Rasmussen SA. What obstetrician-gynecologists should know about ebola: a perspective from the Centers for Disease Control and Prevention. Obstet Gynecol 2014 Sep 8. Epub ahead of print

http://www.ncbi.nlm.nih.gov/pubmed/25203368

- 2. Frieden TR, Damon I, Bell BP, Kenyon T, Nichol S. Ebola 2014 new challenges, new global response and responsibility. N Engl J Med 2014;371:1177-80. http://www.ncbi.nlm.nih.gov/pubmed/25140858
- 3. Green A. WHO and partners launch Ebola response plan. Lancet 2014;384:481. http://www.ncbi.nlm.nih.gov/pubmed/25115001