



A BRIEF REVIEW ON EBOLA VIRUS DISEASE

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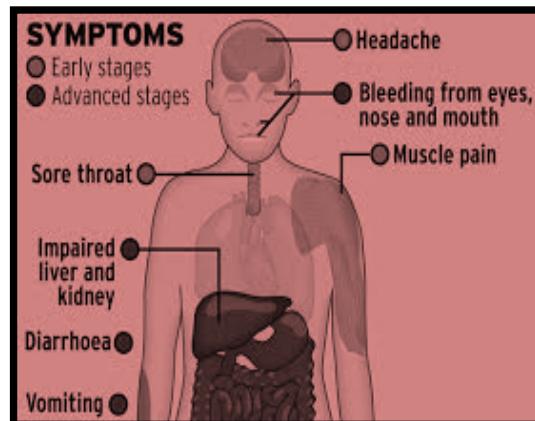
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Abstract:

Ebola, previously known as Ebola hemorrhagic fever, is a rare and deadly disease caused by infection with one of the Ebola virus strains. Ebola can cause disease in humans and nonhuman primates (monkeys, gorillas, and chimpanzees).

Key Words: Monkey & Hem

Introduction:



Ebola viruses are found in several African countries. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa. Epidemics of Ebola virus have occurred mainly in African countries including Zaire (now the Democratic Republic of Congo), Gabon, Uganda, the Ivory Coast, and Sudan. Ebola virus is a hazard to laboratory workers and, for that matter, anyone who is exposed to it. The Ebola virus gained widespread attention in the fall of 2014 when an outbreak in West Africa became the largest outbreak reported in history. In this outbreak, imported case from Liberia and associated locally acquired cases in health-care workers were identified in the U.S. Infection with Ebola virus in humans is incidental -- humans do not "carry" the virus. The way in which the virus first appears in a human at the start of an outbreak has not been determined. However, it has been hypothesized that the first patient (the index case) becomes infected through contact with an infected animal.



Ebola virus is transmitted by contact with blood, feces, or body fluids from an infected person or by direct contact with the virus, as in a laboratory. People can be exposed to Ebola virus from direct contact with the blood or secretions of an infected person. This is why the virus has often been spread through the families and friends of infected persons: in the course of feeding, holding, or otherwise caring for them, family members and friends would come into close contact with such secretions. People can also be exposed to Ebola virus through contact with objects, such as needles, that have been contaminated with infected secretions.



Causes of Infection:

People get Ebola through direct contact (through broken skin or mucous membranes in, for example, the eyes, nose, or mouth) with

- blood or body fluids (including but not limited to urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with or has died from Ebola,
- objects (like needles and syringes) that have been contaminated with body fluids from a person who is sick with Ebola or the body of a person who has died from Ebola,
- infected fruit bats or primates (apes and monkeys), and
- possibly from contact with semen from a man who has recovered from Ebola (for example, by having oral, vaginal, or anal sex)

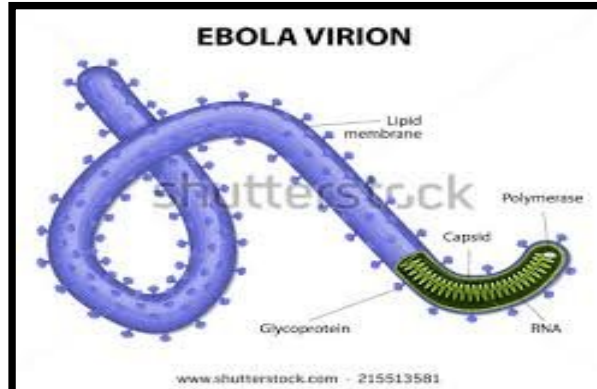


Diagnosis of Ebola Disease:

A person should be isolated and public health authorities notified if they have the early symptoms of Ebola and have had contact with

- blood or body fluids from a person sick with or who has died from Ebola,
- objects that have been contaminated with the blood or body fluids of a person sick with or who has died from Ebola,
- infected fruit bats and primates (apes and monkeys), or
- semen from a man who has recovered from Ebola

Samples from the patient can then be collected and tested to confirm infection. Ebola virus is detected in blood only after onset of symptoms, most notably fever, which accompany the rise in circulating virus within the patient's body. It may take up to three days after symptoms start for the virus to reach detectable levels. Laboratory tests used in diagnosis include:



Treatment of Ebola:

The following basic interventions, when used early, can significantly improve the chances of survival:

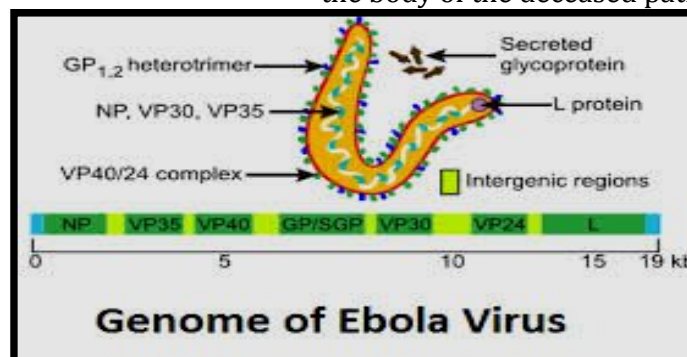
- Providing intravenous fluids (IV) and balancing electrolytes (body salts).
- Maintaining oxygen status and blood pressure.
- Treating other infections if they occur.

Experimental vaccines and treatments for Ebola are under development, but they have not yet been fully tested for safety or effectiveness.

Recovery from Ebola depends on good supportive care and the patient's immune response. People who recover from Ebola infection develop antibodies that last for at least 10 years, possibly longer. It is not known if people who recover are immune for life or if they can become infected with a different species of Ebola. Some people who have recovered from Ebola have developed long-term complications, such as joint and vision problems.

The Prevention:

The prevention of the spread of Ebola fever involves practical viral hemorrhagic fever isolation precautions, or barrier nursing techniques. These techniques include the wearing of protective clothing, such as masks, gloves, gowns, and goggles; the use of infection-control measures, including complete equipment sterilization; and the isolation of Ebola fever patients from contact with unprotected persons. The aim of all of these techniques is to avoid any person's contact with the blood or secretions of any patient. If a patient with Ebola fever dies, it is equally important that direct contact with the body of the deceased patient be prevented.



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