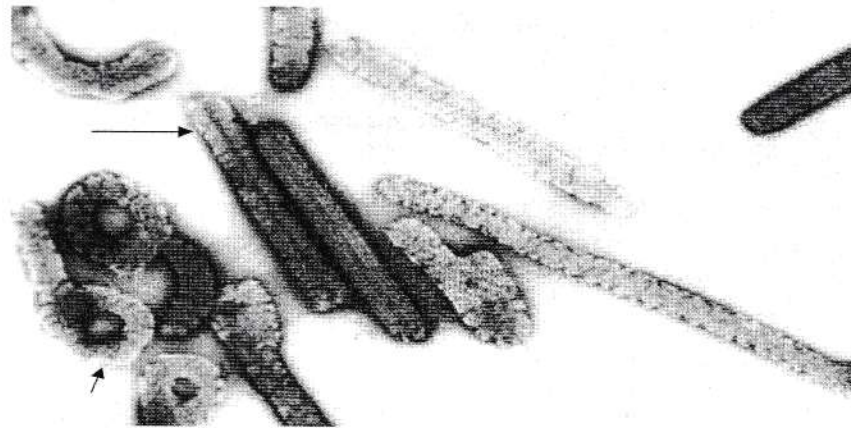


EBOLA virus – Emerging new threat to mankind



Named after the river Ebola in Zaire (at present DRC) which was the site of hemorrhagic fever in 1976 and subsequently in Sudan this deadly virus had affected than 500 persons of which nearly 400 hundred died due to clinical hemorrhagic fever. The recent outbreak of Ebola virus infection in West African countries especially Liberia has claimed the lives of more than 50% of the persons affected by this virus. With an incubation period of 2-21 days, close contact with patients, their blood or their excreta and even burial of dead body are the main source of person to person transmission. Hospital staffs are at a great risk unless barrier nursing methods are strictly implemented. Starting with fever, headache, sore throat, vomiting, diarrhea later bleeding both internal & external followed by shock, DIC and death.

Morphologically unique, these viruses are thread-like and have got a special tropism as well as an ability to evade our immune system.. Several virulence factors contributes to the high morbidity and mortality. Its glycoprotein kills the endothelial cells resulting in hemorrhage. It synthesizes two proteins, one of which block the induction of interferon while the other blocks its action. (Interferon protects our uninfected cells from viral attacks). Lymphocytes are also killed resulting in an ineffective antibody response.

There is no specific antiviral therapies available against Ebola although research for a drug is going on. Treatment is directed at maintaining renal function, electrolyte balance and combating hemorrhage and shock. There is no vaccine but candidate vaccines are under development. Because natural

reservoirs are still not definitely known, control of the virus spread has not been that effective and gradually more and more countries are being effected. Recently 1st case has been documented in New Dehli. Now-a-days, with so much International travels, cases may easily reach a highly densely populated country such as Bangladesh with drastic effects. Any one originating his or her flight from West Africa should be screened for this virus and if required should be monitored in special isolation units until the end of the incubation period. Barrier nursing should be practiced in such units.

Prof. Munir Hassan

Prof. M.A. Bashar

Ref:

1. Jawetz, Melnick & Adelberg. Filoviruses in Medical Microbiology 25th ed. McGraw hill LANGE 2010
2. Warren levinson EBOLA VIRUS. Review of Medical Microbiology & Immunology 12th ed. McGraw hill LANGE 2013