Focus on Ebola

The Killer Strikes Again

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ALMOST all newspapers reported recently that Kikwit town in Zaire was in the grip of a killer, the epidemic Ebola. A viral disease, just 19 years old, became synonymous with death over two months. Even as science tries to banish diseases, new ones seem to be cropping up.

The disease first struck in two epidemics in southern Sudan and northern Zaire in 1976 claiming nearly 300 lives. Scentists identified the causative organism and named Ebola after the river in the region. The second attack was in 1979 in Sudan taking the lives of about 500 people.

Ebola fever, for which there is neither a vaccine nor cure, has an extremely high mortality rate killing between 50-90 per cent of all victims. Ebola virus is a thread shaped virus classed as a member of the family Filoviridiae. Scientists do not know where the virus usually exists in nature and the precise mode of transmission is not elucidated and the viral agent is unclassified. Some experts say that the disease is transmitted by handling tissues and cells of African, Green Monkeys and through the bodily secretions of an infected person. Its incubation period is 5 to 9 days.

Clinical Features

The illness presents with high fever, headache, severe myalgia, vomiting, diarrhoea followed by uremia, prostration, loss of appetite, rash and haemorrhage. On about the fifth day of illness a non-pruritic maculopapular rash appears on face and then spreads to the rest of the body. They are confluent and livid. Diarrhoea is profuse and is associated with abdominal cramps. Haematemesis, malaena and hemoptysis may occur between the seventh and sixteenth days. Hepatosplenomegaly and facial oedema are usually present. This disease is discussed together with Marburg Viral Disease since the manifestations are similar but they are antigenically different. Chest pain and dry cough are prominent in the Ebola disease. Death usually occurs within a week caused by shock from haemorrhage which is due to thrombo cytopenia.

According to Prof. Jean-Jacques Muyumbe, Head of Virology Department of Kinshasa Hospital, the viral strain in the recent epidemic was far more virulent than the earlier ones as people were dying faster and the incubation period had dropped sharply.

Diagnosis

Isolation of virus by inoculation into guinea pigs or cell cultures.

Treatment

There is no specific therapy. Supportive measures like blood transfusions, rehydration, symptomatic management and management of complications will help to some extent. Convalescent human serum appears to decrease the severity of attack.

The W.H.O., is, however, confident that simple sanitary measures like wearing protective clothing, masks and gloves in hospital can control the spread. Avoid close and unprotected contact with the patient or while preparing the dead for burial.

Can we expect the Ebola virus to strike in India? Theoretically it is possible, says Dr. Ranjana Deshmukh, Virologist, Bombay. If surveillance and quarantine are laxed it can occur. But there is not a slim chance since the patient is infectious only in the actuely ill stage and is bleeding profusely, and is unlikely then to travel. If there is any contact with a patient then the concerned persons must be kept under surveillance for 21 days. So we can hope that Ebola won't visit our country in the long run.

References

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