Marburg haemorrhagic fever: A rare but fatal disease

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Keywords: Marburg, Ebola, haemorrhagic fever, outbreak

(SA Fam Pract 2005;47(4): 21)

Introduction

Marburg haemorrhagic fever was initially detected in 1967 following simultaneous outbreaks in Marburg and Frankfurt, Germany and Belgrade (former Yugoslavia). The outbreaks occurred in laboratory workers handling African green monkeys imported from Uganda with resultant 25 primary cases, 6 secondary cases and 7 deaths. Since the initial outbreaks in Germany and former Yugoslavia, the current Angolan outbreak, which started in late 2004 is the sixth reported globally i.e. South Africa (1975), Kenya (1980 & 1987), DRC (1998-2000). As at 15 April, the outbreak in Angola has occurred in 224 cases, with 207 fatalities, resulting in a high case fatality of 92.4%.[1]

The centre of the Angolan outbreak is Uige, a city with about half a million residents and in seven provinces, all in the north of the country are affected.[2]

Epidemiology

The causative virus is the *Marburgvirus* of the Filoviridae family. The disease is clinically indistinguishable from Ebola haemorrhagic fever though the latter's causative agent is unrelated. Transmission of the *Marburgvirus* is via close contact with blood or other body fluids (faeces, vomitus, urine and respiratory secretions) with high virus concentration. Contaminated needle stick injuries result in very severe form of the disease. Transmission is possible via infected semen up to seven weeks after clinical recovery.[3] The incubation period is 3 - 9 days during which transmission does not occur.

The clinical features are abrupt with severe headache, malaise, muscles aches, severe watery diarrhea, abdominal pain, nausea and vomiting. Most patients deteriorate rapidly with severe haemorrhages between days 5 and 7, from multiple sites including the nose, gums, intestines and vagina. As the illness progresses, there may be involvement of the central nervous system causing confusion, irritability and aggression. Death is usually due to severe blood loss and shock. Importantly, the virus does not have a natural reservoir and infection by casual contact is exceedingly rare.

Management

There is no specific treatment for this disease and infected patients are only offered supportive treatment. South African family practitioners must be aware of this disease bearing in mind the ease of air travel within southern Africa. A detailed travel history of any patient who presents with fever, muscle aches and spontaneous haemorrhage should raise the suspicion of Marburg or Ebola hemorrhagic fever. It must be followed by immediate notification of the local health authority and referral to a specialized intensive care unit with facilities for strict barrier nursing. All efforts should be taken to avoid venipuncture in such patients for lab tests as they may continue to bleed from the puncture sites despite efforts to control such bleeding. In addition, this may expose the practitioner to the risk of infection. Until the current outbreak in Angola is under control and the country is declared free of the disease by the World Health Organization, active surveillance is the most reliable and effective tool in controlling its spread within southern Africa.

References:

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