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A REVIEW ON THE CURRENT CHARACTERISTICS OF LASSA FEVER IN NIGERIA

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Introduction

Lassa fever is a viral haemorrhagic fever that is transmitted to human via contact with food or household items contaminated with rodent waste (urine or faeces). It can also occur via contact with infected person or object. Early supportive cares with symptomatic treatment improves survival. The antiviral drug ribavirin seems to be an effective treatment for Lassa fever if given early on in the course of clinical illness [1, 2].

Aim

To investigate the epidemiology and current characteristics of Lassa fever in Nigeria.

Material and Methods

The review was carried out using literature search, old and recent publications addressing Lassa fever with specificity to Nigeria. Epidemiology. Lassa fever is known to be endemic in Benin, Guinea, Ghana, Liberia, Mali, Sierra Leone, Togo and Nigeria. It most commonly exists in West African countries. In Nigeria from January 1st, through 25th February 2018, 1081 suspected cases, 90 deaths have been reported from 18 states (Anambra, Bauchi Benue, Delta, Ebonyi, Edo, Ekiti, Federal Capital Territory, Gombe, Imo, Kogi, Lagos, Nassarawa, Ondo, Osun, Plateau, River and Taraba). During this period, 317 cases have been classified as confirmed and 8 as probable, including 72 deaths (cases of fatality rate is 22 %). A total of 2845 contacts have been identified in the states. 1st January to 3rd March, 2019, a total of 1374 suspected cases have been reported from states that have recorded at least one confirmed case (21 States including Abuja). Of these, 420 were confirmed positive, 15 probable and 939 negative (not a case). Overall, 33 States including Abuja have reported a total 1447 suspected cases, Since the onset of the 2019 outbreak, there have been 93 deaths in confirmed cases. Case fatality ratio in confirmed cases is 22.1 % [2]. Symptoms of Lassa fever. The incubation period of Lassa fever ranges from 6 to 21 days. The onset of this disease, when its symptomatic is usually gradual, starting with fever, general weakness, and malaise. After few days, headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhoea, cough and abdominal pain may follow. In severe cases facial swelling, fluid in the lung cavity, bleeding from the mouth, nose or vagina and low blood pressure may develop. Protein may also be noted in the urine. Shock, seizure, tremor, disorientation, and coma may be seen in the later stages. Deafness occurs in 25 % of patients who survive the disease; in half of these cases hearing usually returns partially after 1–3 months. Transient hair loss and gait disturbance may occur during recovery. Death usually occurs within 14 days of onset in fatal cases. The disease is especially severe in late pregnancy with maternal death and or fetal loss occurring

in more than 80 % of cases during the third trimester [1]. Diagnosis. Because the symptoms of the fever are varied and non- specific, clinical diagnosis is often difficult especially in the early stage of the disease. Lassa fever is difficult to distinguish from other viral haemorrhagic fevers e.g. Ebola etc. Definitive diagnosis requires testing that is available only in reference laboratories. Laboratory specimens maybe hazardous and must be handled with extreme care. The Lassa fever virus can be diagnosed definitively using the following tests: polymerase chain reaction (PCR) assay, antibody enzyme linked immunosorbent assay (ELISA), antigen detection test, virus isolation by cell culture. Treatment. The antiviral drug ribavirin seems to be an effective treatment for Lassa fever if given early on in the course of clinical illness. There is no evidence to support the role of ribavirin as post exposure prophylactic treatment for Lassa fever [2]. In addition to ribavirin, the treatment centres have been provided with other essential commodities required for the prevention, diagnosis and treatment of Lassa fever cases. The Nigeria Centre for Disease Control (NCDC) has had rapid response teams, supporting the state governments of Edo, Ondo and Ebonyi supporting all aspects of the response. The state governments of the Edo, Ondo and Ebonyi States, with the highest burden of Lassa fever have also contributed significantly to the management of cases, ensuring that every single patient received the best treatment possible. All three state governments have supported treatment centres with dialysis machines and other equipment necessary for the treatment of Lassa fever patients. Prevention and control. There is currently no vaccine that protects against Lassa fever. Prevention of Lassa fever relies on promoting good «community hygiene» to discourage rodents from entering the house. Effective measures include storing grains and other foodstuffs in rodent proof containers, disposing of garbage far from the house, maintaining clean household and keeping cat also family member and caregivers should take care to avoid fluid and blood contact with an infected person. Health care personnel dealing with patient suspected or confirmed to have the virus should do so with extra caution i.e. the personnel should be seen working in their complete protective kit (protective eyes glasses, gloves, overall, boot, nose mask etc.). In rare cases test should be conducted on travellers leaving the Lassa fever endemic area for other countries to control the spread of the virus to other places and in suspected cases the healthcare provider should contact experts for advice and arrange for laboratory test [1].

Results and Discussion

The ministries of health of Guinea, Liberia and Sierra Leone, WHO, the office of the United States foreign disaster assistance, the United Nations (UN) and other partners have worked together to establish the Mano river union Lassa fever network. The programme supports 3 countries in developing prevention strategies and enhancing laboratory diagnostics for Lassa fever and other dangerous diseases. Training in laboratory diagnosis, clinical management and environmental control is also included. Lassa fever case management centres are operational in three states (Ebonyi, Edo, and Ondo States). The health care workers working in these centres are trained in standard infection prevention and control (IPC) as well as in the use of personal protective equipment (PPE) and case management. In addition, the suspected cases and deaths reported in community settings are being actively investigated by the field teams and contacts are being followed up [2].

Conclusion

Lassa fever is endemic in Nigeria, especially in central and eastern part of the country. The weekly incidence of this disease in 2018 ranged from 10 to 95 cases and approximately 5 patients died. In endemic states the National RRT team (NCDC staff and NFELTP residents) are deployed to support response, environmental hygiene and eradication of rodents are implemented to control the spread of illness. Diagnosis is based on polymerase chain reaction (PCR) assay, antibody enzyme linked immunosorbent assay (ELISA), antigen detection test, virus isolation by cell culture. Ribavirin is widely used for treatment intravenously.

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MONKEYPOX POX IN NIGERIA: EPIDEMIOLOGY AND PREVENTION

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Introduction

Monkey pox is a member of the Orthopoxvirus genus in the family Poxviridae. It can transmitted via direct contact with the blood, bodily fluids, or cutaneous or mucosal lesions of infected animals. In Africa human infections have been documented through the handling of infected monkeys, Gambian giant rats and squirrels, with rodents being the most likely reservoir of the virus. Eating inadequately cooked meat of infected animals is a possible risk factor. Secondary, human-to-human transmission can result from close contact with infected respiratory tract secretions, skin lesions of an infected person or objects recently contaminated by patient fluids or lesion materials. Transmission occurs primarily via droplet respiratory particles usually requiring prolonged face-to-face contact which puts household members of active cases at greater risk of infection. Transmission can also occur by inoculation or via the placenta (congenital monkeypox). There is no evidence till date, that person-to-person transmission alone can sustain monkeypox infections in the human population.

Aim

To investigate the epidemiology and current characteristics of monkey pox in Nigeria.

Material and Methods

The review was carried out using literature search study, old and recent publications addressing monkey pox with specificity to Nigeria. Epidemiology. Monkey pox is known to be endemic in West African Countries such as Republic of Congo, Cameroon, Central Africa Republic, Ivory Coast, Liberia, Sierra Leone, Gabon, South Sudan and Nigeria. In Nigeria, the onset of the outbreak of Monkeypox was found in Yenagoa, Bayelsa State. This was dated back to September 26th 2017 and WHO was alerted to this sudden outbreak. The index cluster was reported in a family, all of whom developed similar symptoms of fever and generalized skin rash over a period of four weeks. Epidemiological investigations into the cluster show that all infected persons had a contact with monkey about a month prior to onset [1].

Results and Discussion

From the onset of the outbreak in September 2017 through September 15th, 2018, a total of 269 suspected cases was reported across 26 states. From these only 115 cases were confirmed across 17 states. Seven deaths were recorded, four of which were in patients with a pre-existing immunocompromised condition. Two health care workers were among the confirmed cases. The most affected age group was between 21–40 years and 79 % of the confirmed cases were male [1]. In 2018, a total of 76 cases was reported, 37 confirmed, one probable and two deaths. These cases were reported in 15 states (Abia, Akwa-Ibom, Anambra, Bayelsa, Cross River, Delta, Edo, Enugu, Imo, Lagos, Nasarawa, Oyo, Plateau and Rivers and the Federal Capital Territory, Abuja.). In January 2019, 311 suspected cases and 7 deaths were