



An Official Publication of
Department of Pharmacy Practice
Seven Hills College of Pharmacy

(Autonomous)

Tirupati, Andhra Pradesh.

In association with

Sri Padmavathi Medical College for Women,

Alipiri Road, Tirupati, Chittoor (Dist.),

Andhra Pradesh, India.

Contact Us:

shcppharmacypractice@gmail.com

Phone: 7730084513, 7702484513

Editorial Board

Dr.M. Niranjan Babu, Dr. B. Jyothi,

Dr. E Sunil Kumar, Dr. Robin George,

Dr. S. Sirisha, Dr S Divya

Student Co-ordinators

A Vamshi Kumar, P Bharathi

VISION

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professional of global Standards.

MISSION

- To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.
- To build student community with high ethical standards to undertake R&D in thrust areas of national and international standards.
- To extend viable outreach programs for the health care need of the society.
- To develop industry institute interaction and foster entrepreneurial spirit among the graduates

LASSA FEVER- A ZOONOTIC DISEASE - EXPLAINED

A Vamshi Kumar, Pharm D V Yr



Introduction

Lassa fever or Lassa hemorrhagic fever is an acute viral hemorrhagic fever caused by the Lassa virus and is a member of Arenaviridae family of virus and first described in 1969 in the town of Lassa, in Borno State in Nigeria. The virus is similar to ebola. The primary animal host of Lassa fever virus is the multimammate mouse (*Mastomys natalensis*), an animal found in most sub-saharan Africa.

Epidemiology

- Endemic in areas of West Africa, including Nigeria, Liberia, Sierra Leone and Guinea.
- Estimated 300,000-500,000 infections/year, with 5000 deaths.
- Rodent-to-human transmission (the "multimammate rat", *Mastomys* species-complex)
- Secondary human-to-human Transmission with the potential for nosocomial outbreaks with high case-fatality.
- The dissemination of the infection can be assessed by prevalence of antibodies to the virus in country populations.
- For instance we have for:
 - Nigeria-21%
 - Sierra Leone-8-52%
 - Guinea-4-55%

Symptoms of Lassa Fever:



The incubation period of Lassa fever ranges from 6–21 days. The onset of the disease, when it is symptomatic, is usually gradual, starting with fever, general weakness, and malaise. After a 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, vagina or gastrointestinal tract and low blood pressure may develop.

Protein may be noted in the urine. Shock, seizures, 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 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 late in pregnancy, with maternal death and/or fetal loss occurring in more than 80% of cases during the third trimester.

Symptoms of Lassa fever typically occur 2-21 days after coming into contact with the virus. Many people who are infected do not show symptoms.

- Fever
- Headache
- Sore throat
- Chest and muscle pain
- Nausea, vomiting and diarrhoea
- Facial swelling
- In severe cases, bleeding from the mouth, nose, vagina or gastrointestinal tract

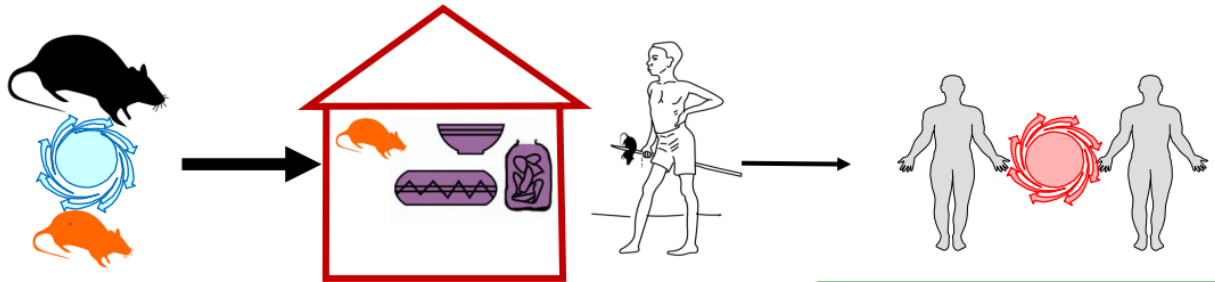


Transmission:

Humans usually become infected with Lassa virus from exposure to urine or faeces of infected *Mastomys* rats. Lassa virus may also be spread between humans through direct contact with the blood, urine, faeces, or other bodily secretions of a person infected with Lassa fever. There is no epidemiological evidence supporting airborne spread between humans. Person-to-person transmission occurs in both community and health-care settings, where the virus may be spread by contaminated medical equipment, such as re-used needles. Sexual transmission of Lassa virus has been reported.

Lassa fever occurs in all age groups and both sexes. Persons at greatest risk are those living in rural areas where *Mastomys* are usually found, especially in communities with poor sanitation or crowded living conditions. Health workers are at risk if caring for Lassa fever patients in the absence of proper barrier nursing and infection prevention and control practices.

Lassa fever Transmission



Reservoir *Mastomys* rats

- The virus maintains itself in *Mastomys* rat population
- Virus is present in urine and feces of infected rats

Primary human infections

- 80 to 90 % of humans are infected through:
- Food or household items contaminated by infected rats' urine and faeces.
 - Direct contact while handling *Mastomys* rats (food source)

Secondary human infections

- Secondary human-to-human transmission occurs through direct contact with the blood, secretions, organs or other body fluids of infected persons.

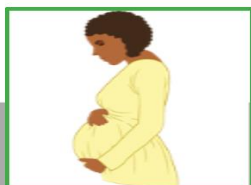
Clinical Features of Lassa Fever Disease:

- The incubation period ranges from 5-21 days.
- With 80% asymptomatic and mild symptoms presentation, overall case fatality rate (CFR) is 1%.
- CFR can reach 15% or more among patients hospitalized with severe presentation.

Most common symptoms include:

- Gradual onset of fever, malaise and general weakness;
- After a few days: headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhea, cough, and abdominal pain.
- In severe cases, patient may present with bleeding, neck/facial swelling and shock.
- Sequelae: various degree of deafness has been shown to occur in 25% of survivors. Hearing return after 1-3 months in only 50% of these patients.

Lassa fever in pregnancy and infants



- Particularly severe in pregnant women and their fetuses (fetal death rate greater than 85%)
- Increased maternal mortality in third trimester (greater than 30%)



- Significant cause of pediatric hospitalizations in some areas of West Africa
- Infants (up to 2 years old) can present a 'swollen baby syndrome' and is associated with high case fatality rate

Diagnosis

Lassa virus infections can only be diagnosed definitively in the laboratory using the following tests:

- Reverse transcriptase polymerase chain reaction (RT-PCR)
- Antigen detection tests
- Virus isolation by cell culture
- Assay antibody enzyme-linked immunosorbent assay (ELISA)

Treatment and Prophylaxis

- Intensive supportive care including: monitor fluid and electrolyte balance and renal function, careful rehydration
- Supportive drug therapy including : painkillers, antiemetic for vomiting, anxiolytic for agitation, +/-antibiotics and/or anti-malarial drugs
- Antiviral drug ribavirin can be given early in course of the disease.
- 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.
- There is currently no vaccine that protects against Lassa fever.

QUVIVIQ (Daridorexant)

P Bharathi Pharm D V Yr



Indications & Usage

QUVIVIQ is an orexin receptor antagonist indicated for the treatment of adult patients with insomnia characterized by difficulties with sleep onset and/or sleep maintenance.

Dosage & Administration

The recommended dosage is 25 mg to 50 mg once per night, taken orally within 30 minutes before going to bed, with at least 7 hours remaining prior to planned awakening.

Dosage Forms & Strengths: Tablets: 25 mg, 50 mg.

Contraindications: QUVIVIQ is contraindicated in patients with narcolepsy.

Adverse Drug Reactions:

The most common adverse reactions (reported in $\geq 5\%$ of patients treated with QUVIVIQ and at an incidence \geq than placebo) were headache and somnolence or fatigue.

Warnings & Precautions:

CNS-Depressant Effects and Daytime Impairment: Impairs alertness and motor coordination including morning impairment. Risk increases when used with other central nervous system (CNS) depressants. For, patients taking QUVIVIQ, caution against next-day driving and other activities requiring complete mental alertness. Worsening of Depression/Suicidal Ideation, Worsening of depression or suicidal thinking may occur.

Sleep Paralysis, Hypnagogic/Hypnopompic Hallucinations, and Cataplexy-like Symptoms: May occur with use of QUVIVIQ.

Departmental Activities June-2022:

No of Patients Screened	Drug Information Queries	Adverse Drug Reactions	Medication Errors	No of Prescriptions Audited
1166	82	17	15	1326

Perfect Click



Glimpses of Workshop On Pharmacy Education & Research: Prospects & Perspectives
with Honourable Dr Montu M Patel, PCI President



Blood Donation Camp in College Premises



International Yoga Day Celebrations



International Day against Drug Abuse
and Illicit Trafficking



Awareness Programme on Nutrition
& Wellness