



A REVIEW ON EFFECT OF LASSA FEVER

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Abstract:

Lassa fever is a contagious disease caused by negative strand RNA virus belonging to the family Arenaviridae which is characterized by the appearance of sandy ribosomes which are encapsulated in the version under e microscope. It is also known as lassa haemorrhagic fever which is active and fetal too which is having unknown etiology. This article will help us to provide the information about the transmission, prevention, and treatment of this disease.

Key words: Lassa fever, Arenaviridae, Lassa hemorrhage, Haemorrhagic fever

INTRODUCTION

Many contagious diseases are invented recently at the global level which are health threatening to people and that is why it's well known that prevention is always better than cure. So it's very essential to educate ourselves with respect to the spread of various diseasing occurring now days, ebola, lassa among which this article will be giving information about lassa fever which is having unknown etiology. It is also known as lassa haemorrhagic fever which is active and fetal too whose cause is lassa virus with enveloped RNA virus belonging to the family Arena virus.[1]

Transmission occur via food and house hold material which is contaminated by zoonotic reservoir[2,3]

This article will help us to provide the information about the transmission, prevention of lassa fever.

DEFINITION

Lassa fever is a contagious diseases caused by negative strand RNA virus belonging to the family Arenaviridae which is characterized by the appearance of sandy ribosomes which is characterised by the appearance of sandy ribosomes which are encapsulated in the version under e microscope. [4,5]Mode of transmission can be food.

SYMPTOMS

Here are some symptoms which will give us a rough idea in the identification or observation of lassa fever. Symptoms are CNS related, other includes pharyngitis, Abdominal pain.

Chest pain, Cervical lymphadenitis which is characterized by unusual growth lymph nodes, Hypoacusis is another symptoms which can be observed in case of lassa fever in which patient is much more sensitive to loudness as it becomes difficult for him to bear different ranges of sound. Other symptoms are Haemorrhage, [6]proteinuria which is characterized by accumulation of protein in the urine. Death typically occurs due to organ failure in about 10-14 days.

Other symptoms include seizures, Tremors, disoriented and coma as well lassa fever cases becomes more fatal in pregnancy at the time of third trimester.[7]

CAUSES

The causative agent of lassa fever is a multimammate rat which was the infective agent of lassa fever it is transmitted via the excretion of rat that means the virus is expelled out by urine and faeces of rat. Zoonotic spillover are thought to occur as a result of human interaction with the urine and faeces of rat through food contamination or the inhalation of aerosols from desiccated urine or faeces.[8]

In rural area the transmission can occur from person to person due to coming in contact with the blood, pharyngeal secretion, or urine of infected person.[9]

Lassa fever can also spread due to sexual contact because the virus can live upto 3 month in the semen[10] after infection. The lassa fever does not infection the person via air that means the virus cannot live or learn in atmosphere as such.

DIAGNOSIS

Different methods of diagnosis were used, multiple tests were used to confirm LF diagnosis, the us centres of disease control and prevention (CDC) guidelines recommend RT-PCR, the antigen test detection by ELISA. Furthermore, (WHO) that is world health organization added viral culture as acceptable.[11] The results coming from various studies from RT-PCR, antigen ELISA and viral culture or when used in combination with each other then there more chances to get the results positively.[12]

TREATMENT

The individual Which are suffering from lassa fever are required to treat or to give antiviral drugs, supportive therapy, Contamination and passive antibody. Let us understand point wise the treatment of lassa fever.

Antiviral drugs

- The compounds have shown in vitro treatment of antiviral drug efficacy, only guanosine analogue, a ribavirin drug had shown practical application. Ribevirin treatment in LF was initiated by foe McCormick in year 1979. Ribiverin becomes 2 times effective [13]when given intravenously rather than administered orally.

Mechanism of action

- Reburerin is thought to interfere with viral replication via inhibiting RNA dependent NAcid syn.[14]
- The advantage of this drug is that it is inexpensive but when it comes to poverty strikers community cost is bit high.
- Suppurative therapy
- It is important in the management of patients infected with lassa fever travelling qerial trauma, gentle sedation should be avoided.

Indication

- Avoiding IM injection
- Acetylsalicylic acid should also be avoided
- Stay hydrated
- Platelet transfusion should be given to manage bleeding pulmonary edema can occur due to vigorous infusion of crystalloid.
- Fluids should be administered cautiously
- Although in addition to all the points mentioned/enlisted above careful monitoring plays a vital role so that it should be carried out periodically.

CONTAMINATION

Parenteral administration should be avoided so the infected person should be provided with mask, gown, gloves.

Close personal contact should be monitored for fever for a period of 3week. The patient may excrete virus in urine or semen for week even after recovery. Protection of sexual partners should be followed and disinfectant should be used in toilets. So very importantly blood cell other body fluids should be handled very cautiously in the clinical laboratory.

Passive antibody

LF infection are difficult prospect for antibody therapy as compared to other arenaveruues as the volume of plasma required is based on animal studies in large.[15,16]

Highly active preparation are available. The antibody therapy uses found to be efficacious.[17,18]

PREVENTION

It has said from part decades the prevention is always better than cure so now let us head to the prevention measure of LH.

1. Avoid all form of contact with multimammate rats specifically in the region of where LF is endemic.[19]
2. Store food in a rodent proof containers.
3. Keep the surrounding clean so that the breeding of rat can be controlled.

4. Always take care of the person suffering from LF and ensure that it won't spread.
5. Set up the biological containment conditions wear mask, gloves, gowns, goggles.
6. Sterilize the equipment.
7. Isolate the patient of LF to prevent the spreading of this fatal disease LF.
8. The persons travelling from West Africa to other countries should be tested for LF as soon as possible if having a symptoms of fever.[6]
9. People residing in the areas where the LF is endemic should be educated or made aware about the condition of LF so that spread of disease can be controlled to some extent.[19]

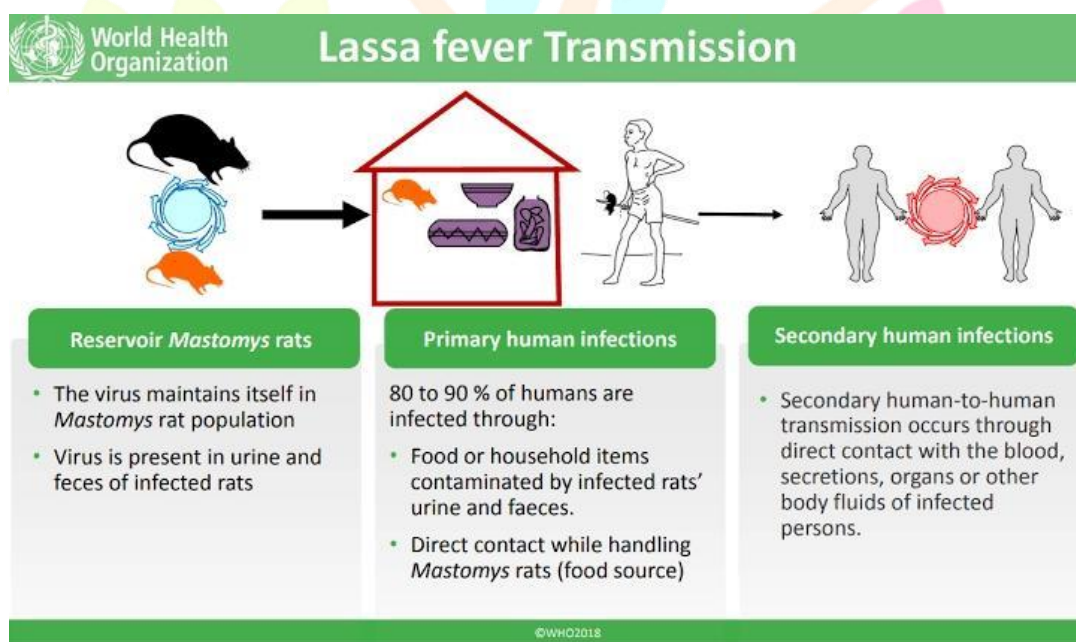
PATHOPHYSIOLOGY

It is very essential to understand the pathophysiology of any diseases occurring in body in order to know the causes and consequences of that disorder. so before reading the pathophysiology of LF let us first understand the meaning of pathophysiology in brief.

Pathophysiology can be broken into three different worlds for better understanding pathos suffering, physics nature, origin logos the study of, so it's basically means the study of abnormal changes in the body functions that are the causes, consequences or concomitant of diseases processes.

As you have been familiar with the meaning of pathos let's jump into the PPL of LF.

Firstly the, reservoir multimammate rats Play role as a host for the virus and the virus is present in the faces and urine of multimam rat Among the human pop. Almost 80-90% of individual gets infected through the contaminated food and house hold items by the infected rat this infection occurs at the 1° level. Another way it can also affects the humans which handle the infected rat. When it comes to the secondary human infection the transmission occurs by direct contact with the blood, secretion, organs or other body fluids of the infected person.



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