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A Review on Orthohantavirus-2019-20



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ABSTRACT

Orthohantavirus is a genus of single stranded RNA virus in the family Hantaviridae in the order bunyavirales. Hantavirus was isolated in 1976 by Ho Wang. Lee named for the hanta river area in South Korea. These Orthohantavirus cause infection in rodents but don't cause disease in them. In Hantavirus human may infected through contact with rodent urine, saliva. The stain can cause disease in the human like as a syndrome such as hantavirus hemorrhagic fever with renal syndrome (HFRS) or hantavirus pulmonary syndrome (HPS). Hantavirus type differ in different region of the world due to symptoms of the diseases.



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INTRODUCTION

Orthohantavirus is a spread mainly from rodents. Hantavirus in Americas is called new world Hantavirus and may cause syndrome like Hantavirus pulmonary syndrome (HPS) other Hantavirus found in Asia and Europe is called old world Hantavirus and can cause hemorrhagic fever with renal syndrome (HFRS). According to CDC Infection of hantavirus have Animal (rate) of about 38%. In 2017 According to Dr. Davis said that Orthohantavirus can be affected by about 800 people in US, as compare to china, hantavirus infection can more than US. Unlike COVID-19-20, the Hantavirus cannot be spread from one person to another, it make very difficult to spread the virus far from the location of an infection. Dr. Davis said that in South America, in rare cases of some patient of the Hantavirus has been transfer from person to person. This type of virus called as Andes virus.

Schematic of Hantavirus structure:

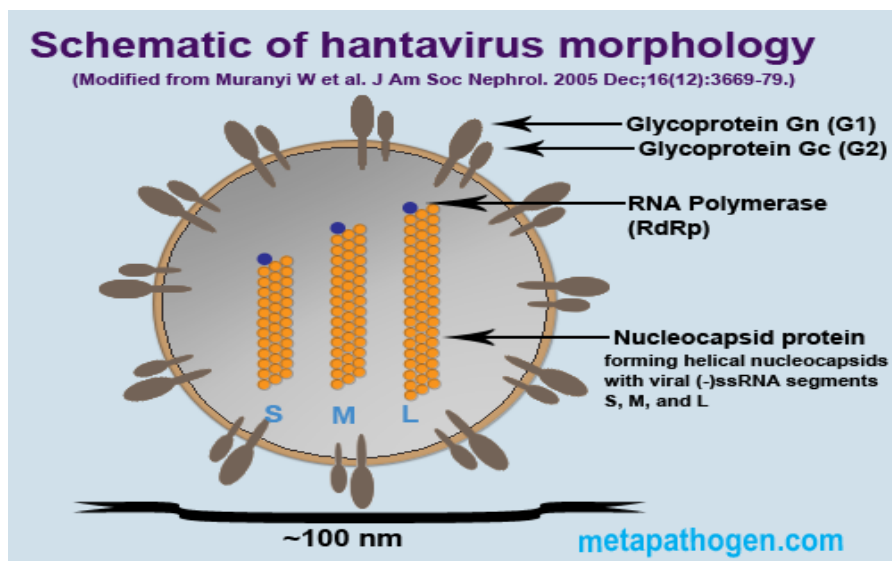


Figure No. 1: Schematic of the Hantavirus structure

How else is Hantavirus different in the US and China?

Hantavirus type differ in different region of the world. Dr. Davis said that RNA containing viruses cause different symptoms in America as compared to Europe, Asia and also said that In the America Hantavirus infection is mainly developed to the HPS, a severe respiratory infection. However, in other such as Russia, China, Korea Western Europe, Hantavirus infection is mainly developed into HFRS (hemorrhagic fever with renal syndrome). The main predominant difference in syndrome of the disease, In HPS mainly shortness of breath can be occur and in HFRS mainly low blood pressure, fever and kidney failure can be occur. These two HPS and HFRS infection do not transfer from person to person.

Pathogenesis

Pathogenesis of Hantavirus infection is unclear due to lack of animal models to describe it. In HFRS the main effect is in the blood vessels while In HPS the main effect affect lungs. In HFRS there is increased vascular permeability and decreased blood pressure seen in kidney. In HPS lungs, spleen, gall bladder can be affected .the early symptoms of the HPS is fever, fatigue after 2-3 weeks, symptoms include difficulty in breathing shortness of breathing and coughing can be also occur.

Transmission:

The viruses that cause Hantavirus hemorrhagic fever have not been shown to transfer from person to person, except Andes virus. In Andes virus, transmission can be occur in rare cases from person to person. In other species, Hantavirus species can be transmitted by rodent bites.

Signs and Symptoms:

Hemorrhagic fever with renal syndrome:

In this syndrome, fever is the main symptoms can be occur such as mainly-

- Korean hemorrhagic fever
- Epidemic hemorrhagic fever
- Nephropathies epidemic fever

- Low blood pressure
- Kidney failure

Hantavirus pulmonary syndrome:

HPS found in north, central and South America. The causative agent is sin Nombre virus carried by mice.

Symptoms such as-

- Fever
- Cough
- Muscle pain
- Headache
- Lethargy
- Shortness of breathing
- Pulmonary edema



Prevention:

According to CDC the best prevention of the Hantavirus is-

- To eliminate or less contact with rodents in the home, workplace or campsite.
- Control of rats and mice in areas frequently by humans is key for disease prevention.
- Properly cleaning and disinfecting areas contaminated by all rodents.

Treatment:

- At this time there is no proper treatment for HPS and medical support.
- Dr. Davis said that there is no vaccine available to protect or to prevent or to treatment of Hantavirus.

CONCLUSION

The Hantavirus cannot be transmitted between human to human except Andes virus. In Andes virus, in rare cases, it is transmitted by person to person. Mainly Hantavirus can be transmitted by rodents. But there is no vaccine can prevent or treat the Hantavirus.

REFERENCES

1. Available from: En.wikipedia.org/wiki/Orthohantavirus.
2. Available from: Canada.ca/en/public-health/services/disease/hantavirus/prevention-hantavirus-infection.html.
3. www.cdc.gov.
4. Available from: www.medicinenet.com.
5. Available from: www.lung.org.
6. Available from: www.youtube.com
7. Available from: economictimes.indiatimes.com.
8. Available from: currentaffairs.gktoday.in.

