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CORONA VIRUS (COVID-2019) HEALTH ALERT

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ABSTRACT

Corona viruses are the family of single-stranded, positive-sense RNA genome 26-32 kilobases in length. Coronavirus causes mild to severe respiratory disorders. In December 2019 several patients with pneumonia of unknown causes were found in Wuhan, Hubei province, China. During the investigation, Chinese health authorities found the viral infection with the use of next-generation sequencing and provisionally named 2019 novel coronavirus (2019-nCoV). In addition to China, 2019-nCoV has been reported in Thailand, Japan, South Korea, Malaysia, Singapore, and the USA. It has been transferred from humans to humans and animals to humans (zoonotic). Most of the infected patients had a high fever and some had dyspnoea, with chest radiographs revealing invasive lesions in both lungs, further researches are going on.

Keywords: - Novel coronavirus, 2019-nCoV.

INTRODUCTION

Viruses are small infectious agents replicates only in living cells (parasites). Coronaviruses are zoonotic, meaning they are transmitted between animals and people. Diseases like respiratory diseases caused by coronavirus are important as a public health issue. The infection is widely spread in China, Thailand, Japan, South Korea, Malaysia, Singapore, and the USA. Novel coronavirus spread in the world and became a public health issue in 2019 from Wuhan, Hubei province, China.

Pathogenesis

The pathogenesis of coronavirus is under study. Coronaviruses are pathogens infecting humans and animals. There are various types of coronavirus such as severe acute respiratory syndrome coronavirus (SARS-CoV) 2003, Middle East respiratory syndrome coronavirus (MERS-COV) 2012, Swine acute diarrhea syndrome coronavirus (SADS-COV) 2016, and recently introduced novel human coronavirus (2019-nCoV), among all these the novel coronavirus (2019-nCov) in china resulted as highly pathogenic to human and animal health.

Structure of 2019-nCoV

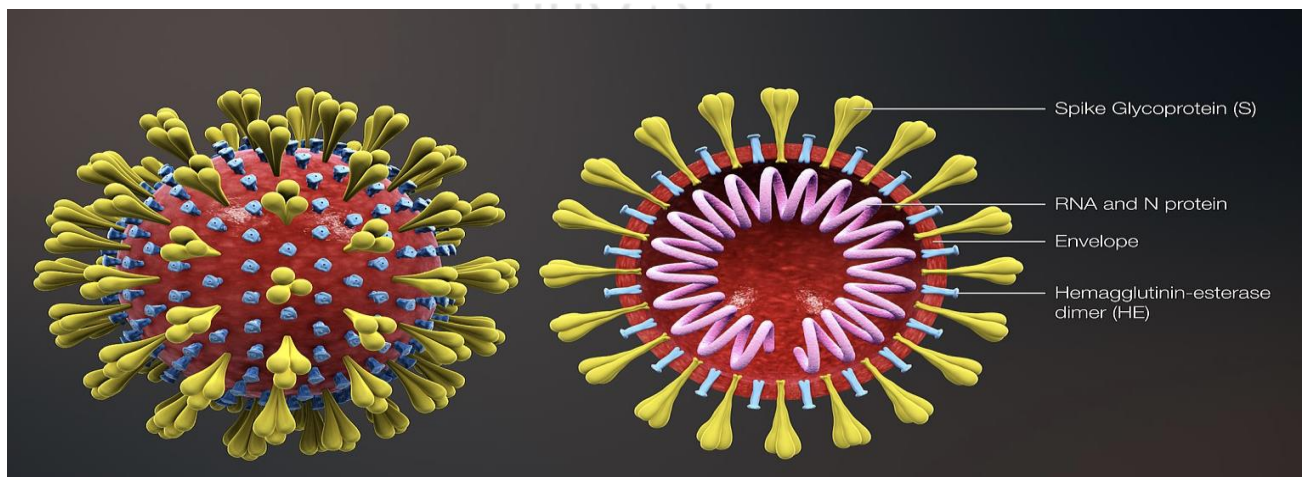


Figure No. 1: Structure of 2019-nCoV

TRANSMISSION

The novel coronavirus is spread in various ways:

Via Person to person

- Close contact with the infected people (about 6 feet).
- Via respiratory droplets produced during sneezing and coughing.
- Infection is spread by inhalation of droplets by persons in close contact.

Contact with an infected surface

- It may be possible to get infected by touching the infected surface or object and then touching the mouth, nose or eyes. This is not the main way of transmission of coronavirus.

Zoonotic

- Novel coronavirus can be transmitted by infected animals.

DIAGNOSIS OF 2019-nCoV

Metagenomic sequencing is used to detect the first case of 2019-nCoV. For obtaining the sequence data polymerase chain reaction (PCR) is developed for clinical diagnostic use. Various sectors including China Center For Disease Control and Prevention (CDC), have designed assays targeting the area of the genome detecting for detection of novel coronavirus and made publically available.

- **Quantitative RT-PCR Assay**

To diagnose the novel coronavirus first the signs and symptoms are to be checked by a medical practitioner or health care provider, for confirmation of novel coronavirus blood samples are taken. Novel coronavirus test is recommended for the respiratory infection by an unknown cause.

SYMPTOMS

Most common symptoms of novel coronavirus are as follows:

- Fever
- Cough

- Respiratory symptoms
- Breathing difficulty
- Shortness of breath

TREATMENT

- There is no specific medicine for the novel coronavirus.
- Treat patients to reduce symptoms.

PREVENTION OF 2019-nCoV

No specific vaccine is developed for the prevention of the novel coronavirus. There are various ways for the prevention of the novel coronavirus.

- Avoid close contact with sick peoples.
- Avoid touching your mouth, eyes, and nose.
- Sick peoples must prefer to stay at home.
- Cover your mouth during coughing or sneezing with tissue and discard the tissue in the trash.
- Clean the frequently used surface or object with regular disinfectant.
- Wash the hands when contact with animals.

DEVELOPMENT OF VACCINE

The vaccine is designed to prevent symptoms and complications of the novel coronavirus. At the date there is no vaccine or antiviral drug is available on 2019-nCoV. There are going on in various countries.

CONCLUSION

Viruses are nonliving infectious agents cause various diseases. 2019- nCoV is one of the viruses transmitted animal to human (zoonotic), human to human, currently there is no

specific vaccine or antiviral drug is not available and scientists are still working on the development of vaccine and antiviral drug.

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