International Journal of Current Advanced Research
ISSN: O: 2319-6475, ISSN: P: 2319-6505, Impact Factor: 6.614
Available Online at www.journalijcar.org
Volume 9; Issue 04 (A); April 2020; Page No.21803-21805
DOI: http://dx.doi.org/10.24327/ijcar.2020.21805.424

Research Article

CRITICAL MOBILITY AND INCLINATION FOR COVID-19

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A R T I C L E I N F O

Article History:
Received 6th January, 2020
Received in revised form 15th February, 2020
Accepted 12th March, 2020
Published online 28th April, 2020

Key words:
Covid-19, Pandemic, Death

A B S T R A C T

Pandemic Coronaviruses are group of related viruses that cause disease in mammals and birds. Rarely can transmit from animal to human and then spread person to person. In humans, coronaviruses cause respiratory infections such as fever, common cold, dry cough, pneumonia or it may produce kidney failure and death.
Here in this short review, we will discuss the shortly the outlooks of coronavirus which is need to know by common people hope it will be helpful

INTRODUCTION

Largest group virus which is belonging to Nidovirales order which consist of Coronaviridae, Arterividae and Roniviridae families. Coronaviridae are further classified into four types the alpha, beta, gama and delta coronaviruses. They all are very large but among them coronaviridae have largest RNA genome containing 30 kilobase (kb) genomes.

A coronavirus is a kind of common virus that causes an infection in your nose, sinuses or upper throat.1 Old coronaviruses aren't very dangerous. But in early 2020, after a December 2019 outbreak in China, the World Health Organization identified a new type of coronavirus.2 Officials named this new virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).3 This is the virus that causes COVID-19.4 COVID-19 has spread from china to other parts of the world affecting more than 200 countries.5

The name "coronavirus" come from the crown like projectons on their surfaces. In latin word corona means holo or crown.
These are the large group of virus which consists of core genetic material surrounded by envelope containing protein spikes. These protein spikes are crown like shape so this virus is called as coronavirus.

Initially it occurred in group of people having pneumonia and it is associated with seafood and live animal market in Wuhan.6 This spreads from sick person to other healthy person.

An outbreak of unusual respiratory condition was first reported in Wuhan, China due to infection caused by coronavirus.7

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There are different types of coronaviruses mainly respiratory and gastrointestinal. Respiratory virus causes common cold and pneumonia while gastrointestinal generally causes mild diseases.

However there are some viruses which causes severe disease. Sever Acute Respiratory syndrome virus SARS-COV 8 was first identified in 2003 at China and Middle East Respiratory syndrome i. e. MERS-COV 9 was identified first in 2012 at Saudi Arabia and novel coronavirus. i. e. 2019-nCoV first detected in 2019 at China. Viruses which transmit from animals to human are known as spillovers e.g. MER-COV is to be came from camels and SAR-COV is came from large cats. The 2019-nCoV origin is not known yet.

New strain of coronavirus that has not been previously identified in humans. However an outbreak of unusual respiratory condition was first reported in Wuhan, China due to the infection caused by coronavirus now known as COVID-19.2,6

The WHO declared COVID-19 outbreak a Global health emergency in 13th January 2020.10,11 On 11th February 2020, the World Health Organization (WHO) announced COVID-19 as the name of disease. Based upon transmission, WHO declared COVID-19 as pandemic in March 2020.12 According to CDC the elderly people, diabetic person, peoples with parkinson's or cardiovascular disease are more prone to this disease. According to WHO 77.8% of cases are between 30-69 years. 51.1% cases are of males. The clinical features of COVID-19 includes decrease white blood cells, cardiovascular damage, diarrhea, fatigue, sore throat, pneumonia, coughing and sneezing, severe acute respiratory disease, lung inflammation and congestion, decrease kidney function and kidney failure.13

Transmission

COVID-19 spreads mainly by droplets produced as a result of coughing or sneezing of a COVID-19 infected person.14, 15 This can happen in two ways: 1) Direct close contact: one can get the infected by being in close contact with COVID-19 patients (within one Meter of the infected person), especially if they do not cover their face while coughing or sneezing. 2) Indirect contact: the droplets survive on surfaces and clothes for many days. Therefore, touching any such infected surface can transmit the disease.16

The exact dynamics how the virus is to be transmit yet to be determined.

In general, respiratory viruses are usually transmitted through droplets created by infected person with cough or sneezing or something contaminated with virus.11,17

Health workers like Doctors, Nurses, Police, people involved in emergency services are on high risk to get infected by Coronavirus.

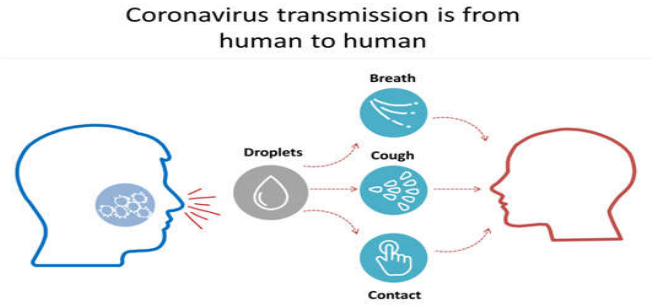

Figure 1 Coronavirus transmission from human to human
Symptoms

The symptoms for coronaviruses are transmitted from mild to severe. There can be fever, cough, pneumonia, kidney failure and death.1 The mortality rate of coronavirus is more than 2% till date.

Incubation period

Symptoms are thought to appear between two and ten days after contracting the virus, but it may be up to twenty four days.

Most people (about 80 per cent) recover from the disease without needing special treatment. However, around one out of every six people (16 per cent) becomes seriously ill and develops difficulty breathing.

Older people and those with underlying medical problems like high blood pressure, heart problems, lung complaints or diabetes are more likely to develop serious illness.18

Diagnosis

The coronavirus diagnosed by real-time reverse transcription polymerase chain reaction are used to confirm cases.19,20 The test is typically done on respiratory samples obtained by a nasopharyngeal swab, however a nasal swab or sputum sample may also be used.21,22

Treatment

There is no any specific medication for virus. Treatment is only supportive care and no vaccine available against the virus yet.23 Treatment and vaccines are under development so prevention is only one method by which one can fight with this life threading Covid-19 era.

Prevention

This new virus has wide geographic spread. However there are standard hygienic measure practices recommended to protect against infection and further control. These include covering mouth and nose while coughing and sneezing with medico mask tissue and by covering with elbow while coughing and avoiding close contact with those who are suffering from acute respiratory infections.24,25 Best way to prevent the spread of germs in health care setting and community is hand wash because our hands are main tool for work as health care worker and they are key link in the chain of transmission. Frequent hand hygiene, especially after direct contact with ill people or their environment.26, 27

Avoid crowded places, avoid touching the eyes, nose or mouth with unwashed hands.28, 29 Wear proper use of mask and PPE. Examples of PPE for use health care setting for COVID-19 are face mask, N95 mask, face shield, goggles, gown, apron, gloves and head covers. For people who are working in health care system washing hands regularly with soap and water or using alcohol base hand wash is very important.26, 27 Action that can be taken to prevent or avoid infection by animals source include avoiding unnecessary contact with animals, washing hands before and after contact with animals products and ensure for animal food cooked thoroughly before they consume.

Social distancing is the main strategy to reduce the contact of infected person.30 Social distancing includes staying at least six feet apart.31

It is important to stay home but if you have fever, cough and difficulty in breathing, seek medical care early and ensure to share your previous travel history with or health care provider.26, 27

CONCLUSION

More research is needed to evaluate the nature of disease which is created by pandemic covid-19. The current outbreaks of COVID-19 do not know the exact source of infection. The first infections were linked to a live animal market, but the virus is now primarily spreading from person to person. But more research is needed to understand the threat of a pet contagiousness or its epidemics, even if it appears low. The precautions and training is the most important step to control this era.

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