



A SHORT REVIEW ON: COVID -19

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ABSTRACT

In 21st century the sudden outbreak of novel corona virus (covid-19) in Wuhan, china rapidly grows. Corona virus is crown like structure which enveloped by SS-RNA viruses that infect a wide range of hosts including Avian, wild, domestic, mammalian species & Human. Spreading of corona viruses person to person by direct close contact and indirect contact. Diagnostic test of covid-19 is rRT-PCR and Serological test. There is no specific treatment is not available till date. Some antiviral drugs and chloroquine, Hydroxychloroquine are use for the treatment.

INTRODUCTION

Covid -19 this term coined by World Health Organization to denote the disease that has led to a pandemic. On February 11,2020, WHO announced a name for inexplicable disease which originating in Wuhan, China. It call covid-19 abbreviated CO stands for – CORONA, VI-virus D – disease while numerals - 19 refer to year in which year first case was detected. Like a corona virus same disease early comes in 21st century SARS-COV-2003 and MERS-COV-2012. The Covid-19 belonging from Nidovirals, Family-Coronaviridae, genus- beta corona virus and subgenus-sarbecovirus. Seven corona viruses can produce infection in people around the world but commonly people get infected with these four human coronaviruses; 229E(Alpha), NL63(Alpha), OC43(Beta), and

HKU1(Beta). Other corona viruses can infect animals like cats, dogs monkeys and rodents.

Epidemiology

In December 2019, many pneumonia cases that were clustered in Wuhan city were reported and searches for the source have shown human seafood market as the origin. upto the first week of June nearby 215 countries in the world get infected by the virus. As per the world meter (June 9, 2020) 7,347,768 total cases of corona virus overall the world from this 3,625,265 pateint are recovered and 414,258 pateint died and 3,308,243 active cases from this active cases 3,254,209 cases are in mild condition (98%) and 54,034 cases are critical or serious (2%).

Country	Total	Death	Recovered	Active
USA	2,046,053	114,167	788,885	1,143,001
Brazil	742,084	38,497	325,602	377,985
Russia	493,657	6,358	252,783	234,516
India	276,583	7,745	135,206	133,632
Italy	235,561	34,043	168,646	32,872
Iran	177,938	8,506	140,590	28,842
Pakistan	113,702	2,255	36,308	75,139
China	83,046	4,634	78,357	55

Fig: Country wise list of COVID Cases

Spreading

The virus typically rapidly spread from one person to another via respiratory droplets produced during coughing and sneezing.

Virus might pass through the mucous membrane especially nasal and larynx mucosa then enters the lungs through the respiratory tract. Then the virus would attack

the targeting organs that express angiotensin converting enzyme 2 such as lungs heart renal system and GI tract. Following peoples having more susceptibility to infection:

- Young children
- Old aged person
- Pregnant women

Symptoms

Most common symptoms of infection is fever, coughing, sneezing, and shortness of breathing. Complication may

include pneumonia, throat pain and acute respiratory distress syndrome.

Type	Symptoms
Respiratory symptoms	Cough ,shortness of breath
Gastrointestinal tract	Nausea ,hygogeusia , hyposmia
Other common	Fever, Myalgia , fatigue, headache confusion

Time from exposure and symptoms onset is generally between 2-14 days with an average of 5 days.

Diagnostic test

Different methods are being experimented in the country to trace covid-19 infection .Three test are more common for confirmation:

Serological test (antibody test)

RT-PCR technique

ELISA Test

Serological Test

Serological test also called as antibody testing, are used to find out the presence of virus in body. In method of testing, blood sample are used to find anti-bodies. This process also detects the quantity of antibodies that are produced by the immune system.

It is an indirect method of testing as it cannot find the virus, but can determine if the immune system has encountered it. Antibody test is fast and inexpensive. It is portable administered on site provides quick answer, Rapid test changes colour when particular mol are detected.

RT-PCR

RT-PCR is the primary test to detect COVID-19 infection across the globe. It is the sensitive test that uses swab sample drawn from nasal/oral cavity to test for the presence of viral RNA. It has better sensitivity and specificity rates in current diagnostic test of COVID.

The RT-PCR technology is a fairly expensive method. It requires RNA extracting machines, a laboratory and trained technicians. A minimum of 30 samples are needed to make it economically viable. Sometimes, it can even up to 4 hour to test for the presence of virus from one batch. The cost of chemicals and importing elements required for the test is also high, one test cost a minimum of 4,500.

Elisa Test

ELISA detects antibodies produced in pateint blood. An ELISA test is of two types depending on antibodies tested for – immunoglobulin G(IgG) and immunoglobulin M (IgM) IgG detects antibodies developed in later stage of infection , and IgM detects antibodies produced in early stages of infection.

Treatment

To date, there is no anti-viral therapeutics that specifically target human corona viruses, so treatments are only supportive. Isolating and supportive care including oxygen therapy fluid management and antibiotics for secondary bacterial infection is recommended.

Allopathy, unani system, ayurvedic, homeopathy this all system having there different treatment.

Allopathy

In allopathic treatment some anti-viral drugs are used. Combination of Remdesivir and chloroquine may be effective to treat COVID-19.following are the drugs which used in treatment with their mode of action

Drug	Mode of action
Lopinavir	Protease inhibitor
Favipiravir	Inhibits viral RNA polymerase and mRNA capping
Remdesivir	Block particular enzyme of virus that is responsible for viral replication
Arbidol	Inhibit membrane infusion
Hydroxychloroquine	Block viral infection by increasing pH required for virus/cell fusion
corticosteroid	Anti –inflammatory

Unani/Ayurveda

Generally, the unani medicines (plant based medicine) are non –toxic and without any side effects. Unani and ayurvedic method of the treatment are based on plant materials. The different parts of the various plants are well known for long time for their anti- viral activities.

The most important plant are glycyrrhiza glabra(liquorices), Allium Cepa(Onion) Allium

Sativum(Garlic) Ocium Sanctum (Tulasi), Piper Nigram(Black paper), Cinnamonum Verum(Cinnamonum), Curcoma Longa(Turmeric) etc. An aqueous extract of these plants along with lemon juice and honey was found to b effective for flu, and common cold virus infections.

Homeopathy

In homeopathy Arsenic at very low concentration is considered beneficial for several diseases including viral infection.

CONCLUSION

In this review represent the current state of COVID -19 situation overall the world. In addition overview of the Epidemiology, spreading, diagnostic test, symptoms, and treatment based on different system. The situation of covid -19 day by day in increasing manner. The person who has strong immunity power may have chances of recovery.

In the prevention of the COVID-19 is wash hands frequently don't touch face or eyes, maintain social distancing.

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