



# HISTORICAL, PRE-POST CLINICAL REVIEW OF CORONAVIRUS DISEASE-2019 (COVID-19)

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## ABSTRACT

There is another new respiratory problem arises in china threatening the world with the emergence and spread of 2019 novel corona virus (2019-nCoV) or the dauce respiratory syndrome corona virus 2 (SARS-CoV-2). The according to some scientist infection started from the bats and it was spread to people through middle person creatures in Wuhan, Hubei region, China in December 2019. The illness is communicated by inward breath or contact with infected person when sneezing and the incubation period goes from 2 to 14 day. Mostly symptoms are fever, cough, sore throat, breathlessness, fatigue, malaise among others. The disease is mild in most people like who is strong and has good immunity power; in some cases it may progress to pneumonia, acute respiratory distress syndrome (ARDS) and multi organ dysfunction. Many people are asymptomatic. There are many cases seen in which after the covid-19 people suffering from typhoid it means typhoid test become positive. The case fatality rate is estimated to range from 2 to 3%. Diagnosis is by demonstration of the virus in respiratory secretions or by the nasal fluid and by special molecular tests. Common laboratory test include normal/ decreasing white cell counts with increased C-reactive protein (CRP). CT scan of chest is nearly abnormal even in those who are covid-19 positive and no symptoms or mild disease. Treatment is very important like supportive, role of antiviral agents are frequently increases day by day but WHO declare that no any especially medicine is effective. Best way to prevent covid-19 is keep separate to suspected person and

those who are with mild illnesses and serious cases are referred to government hospital. Now these day covid-19 become grew faster. The world faced the first waves of Corona and the second wave. People died in the first wave but the second wave caused havoc. And now these day there are many covid-19 vaccine are available in market.

**Keywords:** 2019-nCOV, SARS-CoV-2, COVID-19, Pneumonia, Ayurveda.

## INTRODUCTION

The 2019 novel Covid (2019-nCoV) or the serious intense respiratory condition Covid 2 (SARS-CoV-2) as it is presently called is quickly spreading from its starting point in Wuhan City of Hubei Province of China to the remainder of the world [1]. Till 01/09/2021 around 3.32Cr cases instances of Covid illness 2019 (COVID-19) and death of 4.42L have been reported. Luckily up until now, kids have been inconsistently influenced. Yet, the future course of this infection is obscure. This article gives an elevated perspective with regards to this new infection. Since information about this infection is quickly developing, perusers are asked to refresh themselves routinely.

## HISTORY

Covid-19 are encompassed positive sense RNA virus ranging from 60 nm to 140 nm in measurement with spike like projections on its surface giving it a crown like appearance under the electron magnifying instrument; thus the name Covid [2]. Four Covid-19 specifically HKU1, NL63, 229E and OC43 have been available for use in people, and for the most part cause gentle respiratory infection. There have been two occasions in the beyond twenty years wherein hybrid of creature beta Covids to people has brought about extreme sickness however presently a day a delta variation of Covid is exceptionally popular because of this human has the significant issue. The first such instance was in 2002– 2003 when a new corona virus of the  $\beta$  genera and with origin in bats crossed over to humans via the intermediary host of palm civet cats in the Guangdong province of China. This virus, designated as severe acute respiratory syndrome corona virus affected 8422 people mostly in China and Hong Kong and caused 916 deaths (mortality rate 11%) before being contained [3].

Almost a decade later in 2012, the Middle East respiratory syndrome corona virus (MERS- Cov), also of bat origin, emerged in Saudi Arabia with dromedary camels as the intermediate host and affected 2494 people and caused 858 deaths (fatality rate 34%) .

## ORIGIN AND SPREAD OF COVID-19

In December 2019, grown-ups in Wuhan, capital city of Hubei area and a significant transportation center of China began introducing to neighborhood clinics with serious pneumonia of obscure reason. A considerable lot of the underlying cases had a typical openness to the Huanan discount fish market that likewise exchanged

live creatures. The observation framework (set up after the SARS episode) was actuated and respiratory examples of patients were shipped off reference labs for etiologic examinations. On December 31st 2019, China advised the episode to the World Health Organization and on first January the Huanan ocean bottom market was shut. On seventh January the infection was recognized as a Covid that had >95% homology with the bat Covid and > 70% likeness with the SARS-CoV. Natural examples from the Huanan ocean depths market likewise tested positive, connoting that the infection started from that point [4]. The quantity of cases began expanding dramatically, some of which didn't have openness to the live creature market, reminiscent of the way that human-to-human transmission was happening. The main deadly case was accounted for on eleventh Jan 2020.

The enormous movement of Chinese during the Chinese New Year fuelled the scourge. Cases in different areas of China, different nations (Thailand, Japan and South Korea one after another) were accounted for in individuals who were getting back from Wuhan. Transmission to medical care laborers really focusing on patients was portrayed on twentieth Jan, 2020. By 23rd January, the 11 million populace of Wuhan was put under lock down with limitations of section and exit from the locale. Before long this lock down was stretched out to different urban areas of Hubei region. Instances of COVID-19 in nations outside China were accounted for in those without any set of experiences of movement to China proposing that nearby human-to-human transmission was happening in these nations.

Airports in different countries including India put in screening mechanisms to detect symptomatic people returning from China and placed them in isolation and testing them for COVID-19. Soon it was apparent that the infection could be transmitted from asymptomatic people and also before onset of symptoms. Therefore, countries including India who evacuated their citizens from Wuhan through special flights or had travellers returning from China placed all people symptomatic or otherwise in isolation for 14 d and tested them for the virus.

By the scientist and some other peoples though the SARS-CoV-2 originated from bats, the intermediary animal through which it crossed over to humans is uncertain. Pangolins and snakes are the current suspects.

## EPIDEMIOLOGY AND PATHOGENESIS

All ages of infective condition of corona virus are susceptible. Infection is transmitted mostly through droplets generated during coughing and sneezing by symptomatic patients but can also occurs from asymptomatic people but chance are low and before onset of symptoms. The virus can live on the surfaces for many days in favorable conditions but are destroyed within a minute by disinfectants like extract of *Psidium guajava*, German Chamomile *azadirachta indica*, *Ocimum sanctum* and *Citrus limon*. Infection is transmitted either by inhalation of these droplets or touching surfaces contaminated by them and then touching the nose, mouth and eyes. The virus is also present in the stool and contamination of the water supply and subsequent transmission via aerosolization/ feco oral route is also hypothesized [5]. As indicated by current information, transplacental

transmission from pregnant women to their child has not been portrayed. The agonizing period changes from 2 to 14 d [median 5 d]. Studies have recognized angiotensin receptor 2 (ACE2) as the receptor through which the contamination enters the respiratory mucosa <sup>[6]</sup>.

## CLINICAL FEATURES

The clinically COVID-19 viral fever is change, like some person suffering from mild and some suffering from multi organ dysfunction. The common symptom includes fever (not in all), cough, sore throat, headache, fatigue, headache, myalgia and breathlessness. Conjunctivitis has also been a problem of covid-19. Now this reason these clinical feature is indistinguishable from other respiratory infections. In the 1<sup>st</sup> stage patients are suffering from mild fever, cough, sneezing, by the end of the first week the disease can progress to pneumonia, after that in some cases it will convert to typhoid then respiratory failure and death. The median time when patient is suffering from onset dyspnea is 5 d, need admit in hospital is 7 d and acute respiratory distress syndrome (ARDS) 8 d.

After the Corona virus the issue is intense lung injury, ARDS, shock and intense kidney injury. Recuperation began after the second week implies we can say that second or third wk. The middle span of emergency clinic stay in the people who recuperated was 10 d. Unfriendly results and passing are more normal in the old and those with fundamental co-morbidities (50–75% of deadly cases). Casualty rate in hospitalized grown-up patients went from 4 to 11%. The general case casualty rate is assessed to run somewhere in the range of 2 and 3% .

## DIAGNOSIS

A suspect case is defined as one with fever, sore throat, cough, sneezing, back pain, muscle pain, running nose, formation of mucus plugs has been observed in COVID-19 infection. However cases may be asymptomatic or without fever. A confirmed case is positive when tested by rapid antigen test kit, RT PCR test, VTM kits etc, in some case all of these test become corona negative whenever patient is covid-19 positive, in these cases patient advice to do chest CT scan then this test is giving the confirmation of corona. Specific diagnosis is by specific molecular tests are occurs on respiratory samples like throat swab/ nasopharyngeal swab/ sputum/ endotracheal aspirates and bronchoalveolar lavage<sup>[7]</sup>.

## TREATMENT

In the beginning time frame there was no any unique treatment is accessible except for all the specialist treating to patient based on sign and indication. At the point when anybody is tainted from Coronavirus then the initial step is the confinement of the contaminated individual to forestall transmission of Coronavirus to different contacts, patients and medical care laborers. Gentle medical condition can be overseen at home with legitimate advising about peril signs. The typical standards are keeping up with hydration, sustenance,

controlling fever and hack by home cures. Routine utilization of anti-microbials and antivirals, for example, oseltamivir stayed away from in the Coronavirus affirmed cases. In hypoxic patients, provision of oxygen through nasal prongs, face mask, high flow nasal cannula (HFNC) or non-invasive ventilation is indicated. Mechanical ventilation and even extra corporeal membrane oxygen support may be needed. Renal replacement therapy may be needed in some. Antibiotics and antifungal are required if co-infections are suspected or proven. The role of corticosteroids is unproven; while current international consensus and WHO advocate against their use, Chinese guidelines do recommend short term therapy with low-to-moderate dose corticosteroids in COVID-19 ARDS .Detailed guidelines for critical care management for COVID-19 have been published by the WHO. There is, as of now, no approved treatment for COVID-19. Antiviral drugs such as ribavirin, lopinavir ritonavir have been used based on the experience with SARS and MERS. In a historical control study in patients with SARS, patients treated with lopinavir-ritonavir with ribavirin had better outcomes as compared to those given ribavirin alone. In the case series of 99 hospitalized patients with COVID19 infection from Wuhan, oxygen was given to 76%, noninvasive ventilation in 13%, mechanical ventilation in 4%, extracorporeal membrane oxygenation (ECMO) in 3%, continuous renal replacement therapy (CRRT) in 9%, antibiotics in 71%, antifungals in 15%, glucocorticoids in 19% and intravenous immunoglobulin therapy in 27%. Antiviral therapy consisting of oseltamivir, ganciclovir and lopinavirritonavir was given to 75% of the patients. The duration of non-invasive ventilation was 4–22 d [median 9 d] and mechanical ventilation for 3–20 d [median 17 d]. In the case series of children discussed earlier, all children recovered with basic treatment and did not need intensive care. There is anecdotal experience with use of remdesivir, a broad spectrum anti RNA drug developed for Ebola in management of COVID-19. More evidence is needed before these drugs are recommended. Other drugs proposed for therapy are arbidol (an antiviral drug available in Russia and China), intravenous immunoglobulin, interferons, chloroquine and plasma of patients recovered from COVID-19. Additionally, recommendations about using traditional Chinese herbs find place in the Chinese guidelines [8].

## PREVENTION

Since as of now there are many company who is search vaccine for corona and government also support for vaccination. In Ayurveda medical science many drugs are available which are shows anti covid-19 properties. A few properties of this infection make anticipation troublesome in particular, vague components of the sickness, the infectivity even before beginning of indications in the brooding time frame, transmission from asymptomatic individuals, long hatching period, tropism for mucosal surfaces like the conjunctiva, delayed span of the disease and transmission even after clinical recuperation. Confinement of affirmed or suspected cases with gentle disease at home is suggested. The ventilation at home ought to be acceptable with daylight to take into consideration annihilation of infection. Patients should be asked to wear a simple surgical mask and practice cough hygiene. Parental figures ought to be approached to wear a careful cover when in a similar room as understanding and use hand cleanliness each 15–20 min. The most serious danger in COVID-19 is

transmission to medical services laborers. The rooms, surfaces and gear ought to go through normal disinfecting ideally with sodium hypochlorite. Medical care laborers ought to be given fit tried N95 respirators and defensive suits and goggles. Airborne transmission safeguards ought to be taken during spray creating methodology like intubation, pull and tracheotomies. All contacts including medical services laborers ought to be observed for improvement of manifestations of COVID-19. Patients can be released from segregation once they are afebrile for somewhere around 3 d and have two successive negative atomic tests at 1 d examining span [9].

In momentum situation Coronavirus pandemic absences of possible antiviral medication against irresistible illness. AYUSH researcher recognized the potential phyto-medication to boosting the resistant framework to defeat the Coronavirus appraised components. Considering the criticalness the Coronavirus - 19 flare-up the world wellbeing association has a lot of zeroed in on quick enactment of innovative work exercises. In home grown and present day arrangement of medication there are number of restorative plants like

- Ashwagandha (*Withania somnifera*),
- Guduchi (*Tinospora cordifolia*)
- Kalamegha (*Andrographis paniculata*)
- Tulsi(*Ocimum tenuiflorum* )
- Aparajita (*Clitoria ternatea*)
- Tvaka(*Cinnamomum zeylanicum*)
- Adaraka(*Zingiber officinale* )
- Lavanga (*Syzygium aromaticum*)
- Yashtimadhu(*Glycyrrhiza glabra*)
- Kali Mirch(*piper Nigrum*)
- Pippali(*piper longum*)

these plants are known to be plentiful in cancer prevention agent nutrient protein dietary fiber amino acids, minerals, steroids, alkaloids antiviral, hostile to bacterial, this phytochemicals which will help in reviving the resistant framework and furthermore help in dispensing with the in required infections invulnerable framework in the body assume a significant part to battle against un sound climate and organisms, for example, infection microbes parasite and so forth [10]. The service of AYUSH contributed in avoidance just as the executives with the assistance of restorative plant and detailing through AYUSH arrangement of medication like Ayurveda, Siddha, Unani, and homeopathic during the Corona-virus pandemic in current. These spices might help the doctor in treating fever, cough, cold and other like Corona-virus relative issue. Some significant restorative plant readiness, for example, AYUSH, CHWANPRASS, KWATTHAS, AYUSH 64, Aanutail and so on. Are calculable in the avoidance and the executives of Corona-virus illness.

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