

Syrian Arab, Republic Grenada, and Mozambique, on 24th March in Myanmar, Belize Dominica, Turks, and Caicos Island, on 25th March in Lao people's Democratic Republic, Libya, on 26th March in Saint Kitts and Nevis, Guinea-Bissau's, on 27th March in Anguilla, British Virgin Islands, on 29th March in the Commonwealth of the Northern Mariana Islands [111, 112].

On 1st April 2020, first confirmed case was reported in Botswana, Burundi, and Sierra Leone, on 3rd April in Malawi, on 4th April in Bonaire, Sint Eustatius Saba, on 5th April in Falkland Islands (Malvinas), on 6th April in South Sudan, on 7th April in Sao Tome and Principe, on 8th April in Saint Pierre and Miquelon, on 11th April in Yemen [111, 112].

1.2. SARS-CoV-2 Natural / Laboratory created:

Some folks claim that the new coronavirus causing the pandemic was man-made or engineered in a lab and deliberately released to make people sick [113]. It is currently impossible to prove or disprove the theories of its origin [114]. However, since we observed the result of genomic features might explain in part the infectiousness and transmissibility of SARS-CoV-2 in humans and it discredits that this novel coronavirus arose naturally [115,116].

China blaming as the US army may have brought the virus to Wuhan: China [117]. Luc Montagnier a Noble Laureate and French virologist has claimed that SARS-CoV-2 is man-made virus and as an industrial accident was said to have taken place in the Wuhan National Biosafety laboratory that specializes in these coronaviruses since the early 2000s [118].

2. Incubation Period:

The incubation period was 27 days [119,120,121].

3. Transmission of infection:

COVID-19 virus is primarily transmitted between people through respiratory droplets and contact routes (primarily contact with an infected person, or indirectly with surfaces in the immediate environments i.e., fomites (objects used on by the infected person). Initially, airborne transmission was not considered as mean for infection [122]. But, the possibility of transmission can't be ruled out under specific circumstances and settings in which procedures or support treatments that generate aerosols are performed; i.e., endotracheal intubation, bronchoscopy, open suctioning, administration of nebulized treatment, manual ventilation before intubation, turning the patient to the prone position, disconnecting the patient from the ventilator, non-invasive positive-pressure ventilation, tracheostomy, and cardiopulmonary resuscitation [123]. Current research supports the possibility of spread of infection through bio-aerosols generated directly by patients' exhalation, they are referring to fine particles emitted when someone breathes that can be suspended in the air [124].

According to Linsey Marr, an aerosol scientist at Virginia Tech the health experts so far less paid importance to the possibility of transmitting covid19 infection through the air, "I think that transmission by inhalation of the virus in the air is happening, Scientists Probe How Coronavirus Might Travel Through The Air, National Research Council 2020 [125].

Since the study indicates that the aerosol and fomite transmission of SARS-CoV-2 is plausible since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days (depending on the inoculum shed) [126, 127]. SARS-CoV-2 are viable and detected up to 72 hours (3 days) on the surfaces with a median half-life of approximately 1.1 to 1.2 hours, and the longevity of viability was stable on plastic and stainless steel than on copper and cardboard [128].

4. Clinical presentation of COVID-19

However, COVID-19 is a respiratory illness that primarily affects lungs, and researchers reported that the virus is also damaging the Brain, heart, kidneys, intestinal tract and liver [129,130,131]. The range of organs impacted by the virus makes the progression of the disease unpredictable and further complicates the recovery process [132, 133].

About 80-85% of patients suffer from mild or moderate symptoms, 15-20% of cases experience severe [134,135]. Usually it can take up to six weeks to fully recover from COVID-19, experts say, and even months in some severe cases [136,137].

The most common symptoms manifested are Fever, Fatigue, Dry cough, Anorexia, Myalgia, Dyspnoea, Sputum, and Sore throat, [138,139,140] Uncommon symptoms are-Confusion, Dizziness, Headache, Running nose, Haemoptysis, Foot sores, Impairment of Renal function otherwise renal failure, Myocarditis, arrhythmia, cardiac arrest, Pulmonary embolism, respiratory failure, Loss of smell and taste (olfactory and gustatory sense), Conjunctivitis, Intestinal infection leads to pain abdomen, diarrhoea and vomiting, Acute inflammation of the liver [141,142,143,144].

5. Placentas cell therapy for COVID19

On 7th April 2020, according to Yaky Yanay the CEO and President of Pluristem Therapeutics Company Haifa Israel, so far they have treated 7 cases of COVID19 from Israel, and one is under treatment from America with 15-milliliter inter muscular doses of placentas protein known as PLacental eXpanded(PLX) cells [145,146]. All seven Israelis patients had survived and three soon move off ventilators, while one had shown deterioration in respiratory parameters [147]. Two of the four Israelis with multiple organ failure showed clinical recovery as well as respiratory improvement. The firm had obtained approval on a patient-by-patient basis from the regulators [148]. Researchers around the world are studying the efficacy of mesenchymal stem cell-based products and therapy, around 10 patients in China were tested and 7 shows improvement in COVID-19 infection [149].

As the whole world puts up a collective fight against the COVID-19 pandemic, some worrying news has cropped up from across Asia-patients who tested negative of the disease are being infected with the SARS-CoV-2 virus again. Such cases had been reported from South Korea, China and Japan. Researchers from China addressed the possibility of reinfection by conducting experiments on rhesus monkeys. After 28 days, they found that the oral and anal swabs of monkeys did not show the presence of the virus. Researchers at the School of Basic Medical Sciences, Fudan University, Shanghai studied blood samples from patients who had been released after treatment and found that nearly a third had low levels of antibodies. In some patients, the antibodies could not be detected at all. The titres (concentration) of antibodies varied according to age. Older patients had more antibodies than the younger ones. The study was published in [medRxiv](#) on March 30, 2020 and has not been peer-reviewed. This could mean that if the real virus cannot induce an antibody response, the weakened version used in a vaccine may not work. South Korea's Centre for Disease Control (CDC) claimed the virus reactivated in some patients. It said it would study this further.

“The most likely explanation is that people have simmering virus replication for an unusually long time and this can occasionally result in late reactivation. Most available data stated that the length of virus detection varies from person to person, so it isn't surprising that some people might continue to produce the virus and get sick,” says Dave O' Connor, professor at the Department of Pathology and Laboratory Medicine, University of Wisconsin-Madison [150]. The latest news by Italian scientists on 06 May 2020, who claimed to have developed vaccine that neutralises coronavirus in human cells. As per tests conducted at Rome's infectious-disease Spallanzani Hospital, the coronavirus vaccine has antibodies generated in mice that work on human cells. All of the vaccine candidates currently being developed are based on the genetic material of DNA protein 'spike' [151]. Scientists from the University of Texas (UT) at Austin, the National Institutes of Health and Ghent University in Belgium developed a treatment that links two nanobodies isolated from a llama to create an antibody that binds to the spike protein on the coronavirus that causes COVID-19. That bond prevented the virus from invading cells, the researchers reported in the journal *Cell* [152]. The journal *Science* on April 26 reported on a clinical trial in which critically ill Covid-19 patients at Northwell Health in the New York City area were receiving nine times the heartburn dose. Interim results from 391 patients could be known in “a few weeks,” according to a hospital researcher [153].

Conclusion

The coronavirus infection is a global threat, still uncertain about its intermediary host and hypothesizing different means of transmission of infection including clusters. The new strain of virus and non-availability of treatment and severely ill and critically ill case management becomes a challenge and novel interventions are under trials. As the pandemic is progressing and the number of deaths is high and recovery is negligible, hence the circumstances prevail compulsory for social distancing and lockdowns.

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