

COVID-19: A New Virus as a Potential Rapidly Spreading in the Worldwide

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ABSTRACT

Covid-19 is a novel virus with high affinity to spread in the community. In December 2019, it was first identified in Wuhan, China. The symptoms are non-specific, so fever, cough, dyspnea, are prominent features. Respiratory failure and mortality have also been reported. The most common lung CT scan findings are bilateral ground glass opacities.

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Introduction:

In the late December 2019, a new type of coronavirus named Covid 2019 first reported from Wuhan, China leads to spread quickly and globally. As the outbreak of the COVID-2019 from February 2020 more than 82000 cases and 2800 deaths have been reported that approximately 95% of cases and 97% of deaths from China(1). Covid 2019 belongs to the Coronaviridae group, which was formerly reported as SARS and MERS viruses. The world health organization (WHO) has recently expressed Covid -2019 as a public health emergency state (2). So far, the virus has been reported in many countries, including Iran.

Epidemiology:

The attack rate of virus is a very high which human to human transmission is feared to have the potential to cause a pandemic. The incubation period is

estimated 14 days with a median of 5 to 6 days, although recent case reports suggest that the incubation period may be as long as 24 days(3). Basically, the virus is transmitted through large droplets inhalation, although it is also found in stools and blood, thus raising questions about other potential modes of transmission. Same as the other corona viruses, health care associated transmission arises to be a major mode of infectious (4).

Clinical presentation:

According to the China reports, the median age is the 50 s with a slight predominance of men, approximately 25% of patients have a severe period need intensive care unit and approximately 10% required mechanical ventilation (5).

The clinical presentations include fever 83% to 98%, dry cough in 82%, dyspnea and respiratory distress in 88.7%, fatigue and

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myalgia in 11 to 44% and other symptoms have been reported such as headache, sore throat, abdominal pain and diarrhea. Abnormal laboratory findings are lymphopenia (70%), prolonged prothrombin time (58%) and elevated dehydrogenate (LDH) (40%). Chest radiographs are defined by bilateral patchy infiltrates and chest CT scans demonstrated ground glass opacities (6). Similar to the clinical manifestations, the case fatality rate (CFR) appears to be highly variable. On the basis of case reports, the currently fatality rate is approximately 2%, nevertheless early reports from Wuhan, China suggested that it could be as high as 8 to 15% in older adults. The CFR is increased in older adults and co-morbidities who presented with severe respiratory symptoms (7).

Diagnosis:

It is recommended that the specimen from nasopharyngeal, lower respiratory tract samples such as induced sputum or Broncho alveolar lavage offered for reverse-transcriptase polymerase chain reaction (RT-PCR) test. A history of traveling or residence at the common sites, lung computed tomography scans (CT), lymphopenia and high CRP is very beneficial for diagnosis. Lung CT scans appear to be highly sensitive in the course of the disease until the preparation of the RT-PCR test (8).

Treatment and prevention:

The care of the patients with COVID-19 is similar to that of other viral pneumonias, essentially including supportive care and oxygen supplementation when needed. Corticosteroids have not been recommended. CDC suggests that health care workers use personal protective equipment (PPE) and implement standard contact and air born precautions including the use of eye protection. Currently, no vaccine against COVID-19 is available (9).

Conclusion:

Covid 2019 is a novel virus with high outbreak and mortality.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All authors have made substantial contribution to concept this paper.

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