IJTMGH
International Journal of Travel Medicine and Global Health

Int J Travel Med Glob Health. 2020 Mar;8(1):44-45
http://ijtmgh.com

doi 10.34172/ijtmgh.2020.07

Letter to Editor

Open Access

New Coronavirus (2019-nCoV): An Insight Toward Preventive Actions and Natural Medicine

Leila Khedmat*

Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

Corresponding Author: Leila Khedmat, MD, Assistant Professor, Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran. Tel: +98-021-22811258, Email: leilakhedmat@yahoo.com

Received February 17, 2020; **Accepted** March 2, 2020; **Online Published** March 11, 2020

Citation: Khedmat L. New coronavirus (2019-nCoV): An insight toward preventive actions and natural medicine. Int J Travel Med Glob Health. 2020;8(1):44-45. doi:10.34172/ijtmgh.2020.07.

Dear Editor,

Today, one of the most critical health issues is the wide outbreak of novel coronavirus infection, which is so far affected 115 countries and territories all around the world. Presenting the possible risks and appropriate health preventive measures, as well as finding some bio-pharma strategies may open a bright horizon to alleviate the number of patients and the rate of disease transmission until discovering the vaccines and definitive treatments.

In December 2019, novel coronavirus was initially recognized in Wuhan State, Hubei Province, China. This virus and its disease were called "SARS-CoV-2" and "coronavirus disease 2019 or COVID-19", respectively. The COVID-19 was quickly spread in other Far East Asian countries and then to the Middle East and Europe.[1] Similar to severe acute respiratory syndrome (SARS; 2002-2003) and the Middle East respiratory syndrome (MERS; 2012-ongoing), SARS-CoV-2 is the beta-coronavirus that originated from bats, causing fever, dry cough, and severe acute respiratory (SAR, e.g., breath shortness).[2] Other common symptoms of this viral disease are fatigue, sputum production, myalgia or arthralgia, sore throat, headache, chills, nausea or vomiting, nasal congestion, diarrhea, and hemoptysis, and conjunctival congestion.[2,3] In general, undesirable clinical outcomes are correlated to older adults and travelers with underlying health issues. Although the clinical diagnosis of COVID-19 in people can be resulted according to their signs, exposures, and chest imaging, nucleic acid testing of respiratory tract samples (eg, throat swabs) can be considered as a "gold standard" to confirm the viral infection.[4,5]

The COVID-19 outbreak not only can occur under the individual's close contact with people carrying this virus but also being in areas where ongoing community spread of the virus. Due to the relatively high prevalence rate, many continuing efforts have been made to design guidelines to reduce outbreaks and encourage accurate and timely clinical reporting. From an epidemiologic viewpoint, the assessment of transmission modes, reproduction interval, and clinical spectrum of COVID-19 may have a vital role to prevent or control, and stop its incidence in communities. In this short time, no vaccine or efficient clinical treatment to fight COVID-19 infection has been yet explored. Therefore, the implementation of some preventive health measures as well as experiences of using medicinal herbs with excellent antiviral activities in controlling primary complications in patients will be important.

The first step to prevent the spread of COVID-19 is the reduction or abolition of social gathering in areas with an elevated risk of exposure to the virus. A priority to reduce the disease rate is the quarantine of healthy individuals without symptoms at home, while suspected COVID-19 patients should be under quarantine at the assigned hospital and healthcare centers. The next step is the compliance of elementary cleanliness strategies based on the World Health Organization (WHO) recommendations,[3] including frequent washing hands for 20 second or more with soapy water, avoiding touching the mouth, nose or eyes, carrying the hand sanitizers, spraying the contact surfaces with 70% isopropyl alcohol, and wearing protective medical masks and gloves for effective self-care needs.

Since COVID-19 like other beta-coronaviruses can be spread by increasing the nutrient deficiencies, improving the immune system through vitamin and mineral supplements can act as a defense barrier against the COVID-19 invasion. Ascorbic acid can be the first player in maintaining immunity, although there is no evidence to prevent COVID-19 by receiving this vitamin at mega doses. It was also demonstrated that increasing the intracellular Zn^{2+} dose could capably

damage the replication of a wide range of RNA viruses, such as poliovirus, influenza virus and SARS-CoV, and equine arteritis virus (EAV).[6] Besides, there are an extensive variety of medical plants in traditional Iranian and Chinese medicine with known clinical effects to improve the most important implications of COVID-19, namely fever, dry cough, and SAR. The aqueous and alcoholic extraction of bioactive compounds from these herbs and the administration to patients at safe doses during clinical trials can be a newer step to reduce symptoms and improve the recovery. To sum up, these non-specific antiviral therapies along with the adherence to standard health protocols recommended by WHO may successfully promote public health in the communities involved with the COVID-19 outbreak.

Conflict of Interest Disclosures

The author declares that she has no conflicts of interest.

Ethical Approval

Not applicable.

Funding/Support

None.

References

1. Zhu N, Zhang D, Wang W, et al. A novel coronavirus from patients with pneumonia in China, 2019. N Engl J Med. 2020;382(8):727-733. doi:10.1056/NEJMoa2001017.
2. Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. JAMA. 2020. doi:10.1001/jama.2020.2648.
3. World Health Organization (WHO). Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19). WHO; 2020.
4. Bernheim A, Mei X, Huang M, et al. Chest CT Findings in Coronavirus Disease-19 (COVID-19): Relationship to Duration of Infection. Radiology. 2020:200463. doi:10.1148/radiol.2020200463.
5. Zhang J, Liu J, Li N, et al. Serological detection of 2019-nCoV respond to the epidemic: a useful complement to nucleic acid testing. medRxiv. 2020. doi:10.1101/2020.03.04.20030916.
6. te Velthuis AJ, van den Worm SH, Sims AC, Baric RS, Snijder EJ, van Hemert MJ. Zn(2+) inhibits coronavirus and arterivirus RNA polymerase activity in vitro and zinc ionophores block the replication of these viruses in cell culture. PLoS Pathog. 2010;6(11):e1001176. doi:10.1371/journal.ppat.1001176.