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Letter to the Editor

Possible treatment of "Omicron" in Western and Chinese medicines

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Dear Editor

Recently, there is a COVID-19 mutated variant, B.1.1.529 discovered in South Africa and called "Omicron" according to the World Health organization's suggestion [1]. This is not yet clear whether omicron is more transmissible from person to person. It causes the infection by the presence of spike protein which facilitates a virus' entry into the host cell [2]. Is vaccination suitable for this variant? Up to the present, we have received very little information about the omicron which mainly depends on previous experiences in other COVID-19 variants. Thus, some possible treatments of omicron have been proposed in Western and Chinese medicines.

In western medicine, COVID-19 antibody-drug such as "Sotrovimab" is still effective to fight against the omicron variant [3]. Sotrovimab is a SARS-CoV-2 neutralizing

antibody that targets the angiotensin-converting enzyme 2 (ACE2) binding domain (RBD) and locks the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) spike protein for mediating the spike-ACE2 interaction [4]. Antiviral drugs such as "Remdesivir" are also thought to be effective for the omicron variant [3]. Remdesivir is an inhibitor of the RNA-dependent RNA polymerase which reduces and suppresses the virus replication [5].

Based on the traditional Chinese medicine principles derived from "Huangdi Neijing", COVID-19 belongs to the epidemic, e.g., damp toxins. It consists of external and internal factors regarding the evil of human infectious diseases and lacks the human body's righteousness [6]. Wu et al. reported some Chinese herbal medicines such as "Realgar", "Cyrtomium Fortunei J. Sm", "Astragali Radix", "Glycyrrhizae Radix" expel damp toxins and restore vital (internal) energy to enhance an immune system [7]. These Chinese herbal medicines' functions are to alleviate symptoms of COVID-19, reduce the inflammatory process, and prevent deterioration [8].

All of the preliminary information demonstrates that omicron might be treated either with Western or Chinese medicines. However, more works need to be done as well as a clinical trial from stage I to IV in the human body for further investigation.

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References

1-World Health Organization. Update on Omicron, 28 Nov 2021.

Available at:

https://www.who.int/news/item/28-11-2021-update-on-omicron. Accessed 9 Dec 2021.

2-New Delhi. Omicron variant reportedly has over 30 mutations in spike protein, may bypass vaccines: AIIMS chief, 28 Nov 2021. Available at:

https://www.indiatoday.in/coronavirusoutbreak/story/omicron-variant-reportedly-has-30-mutations-in-spike-protein-may-bypassvaccines-aiims-chief-randeep-guelria-1881833-2021-11-28. Accessed 9 Dec 2021.

3-Carolyn Crist. COVID-19 Antibody Drug Likely Works Against Omicron, Companies Say, 2 Dec 2021.

Available at:

https://www.webmd.com/lung/news/20211202/covid-antibody-drug-likely-works-against-omicron-companies. Accessed 9 Dec 2021.

- 4-Barnes CO, Jette CA, Abernathy ME, Dam KA, Esswein SR, Gristick HB, et al. SARS-CoV-2 neutralizing antibody structures inform therapeutic strategies. Nature 2020;588(7839): 682-687.
- 5-Beigel JH, Tomashek KM, Dodd LE, Mehta AK, Zingman BS, Kalil AC, et al. Remdesivir for the Treatment of Covid-19 Final Report. N Engl J Med 2020;383(19): 1813-1826.
- 6-Nathan S, Loewe M, Huang Ti Nei Chin. In: Loewe M. (ed.). Early Chinese texts: a

- bibliographical guide. Berkeley and Los Angeles 1993:196-215.
- 7-Wu XQ, Zhang WN, Hao MZ, Liu XP, Xiao J, Wang TF, et al. How Chinese Herbal Medicine Prevents Epidemics: From Ancient Pestilences to COVID-19 Pandemic. Am J Chin Med 2021;49(5):1017-1044.
- 8-An X, Zhang Y, Duan L, Jin D, Zhao S, Zhou R, et al. The direct evidence and mechanism of traditional Chinese medicine treatment of COVID-19. Biomed Pharmacother 2021;137:111267.