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LETTER TO THE EDITOR

Wearing masks and the fight against the novel coronavirus (COVID-19)

Correspondence:

We read with great interest the article by Ippolito et al.¹ in which the authors summarized the use of medical masks in the viral outbreaks like the COVID-19. They pointed out that wearing medical masks and respirators are critical in the personal protection for the healthcare workers, especially in virus breakouts such as COVID-19. They also expressed their concerns about the worldwide mask supplies running out. As their study compared different features of medical masks and respirators, the essential role of wearing masks for both inward and outward protection (protecting the wearer from the environment and the opposite) was emphasized. Apart from the inward and outward protection that wearing the mask provides, the indirect effect of wearing masks during epidemics can also be of great importance.

As COVID-19 is present in saliva,² wearing the medical mask stops the transmission of this disease in droplets and aerosols. As patients may be asymptomatic and the reactivation of this disease is possible,^{3,4} wearing masks by asymptomatic individuals is strongly recommended. In addition to the direct mechanisms of preventing the spread of the virus, which is the main function of medical masks in viral infections, the other way that wearing the medical masks helps the healthcare systems to combat such epidemics is by decreasing the workload of the healthcare systems and facilitating detection of the new cases.

In COVID-19 outbreak, the symptoms of the disease are cough, fever, fatigue, diarrhea, headache, sputum production, haemoptysis, dyspnoea and lymphopenia.⁵ These symptoms are common among other types of influenza and bacterial common cold. Wearing masks will also prevent those types of infections caused by other types of pathogens which are communicable with aerosols and droplets. If all the individuals in a community wear masks, the number of cases referred to the hospitals presenting COVID-19 like symptoms decreases. In other words, the work load of the medical system decreases. So, the real cases of COVID-19 can be screened out of all other types of influenza and common cold comparatively easily. By referring fewer people to the clinics and hospitals, the chance of the contamination of new patients while visiting the hospitals and clinics also decreases. This strategy might help countries to fight against the outbreak of COVID-19.

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Conflicts of interest

The authors have no conflicts of interest to declare.

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References

1. Ippolito M, Vitale F, Accurso G, Iozzo P, Gregoretti C, Giarratano A, et al. Medical masks and Respirators for the Protection of Healthcare Workers from SARS-CoV-2 and other viruses. *Pulmonology*. 2020. S2531-0437(20)30088-X. <https://doi.org/10.1016/j.pulmoe.2020.04.009>.
2. Alizargar J, Etemadi Sh M, Aghamohammadi M, Hatefi S. Saliva samples as an alternative for novel coronavirus (COVID-19) diagnosis. *Journal of the Formosan Medical Association*. 2020. <http://dx.doi.org/10.1016/j.jfma.2020.04.030>. In press.
3. Alizargar J. Risk of reactivation or reinfection of novel coronavirus (COVID-19). *Journal of the Formosan Medical Association*. 2020. <http://dx.doi.org/10.1016/j.jfma.2020.04.013>. In press.
4. Aghamohammadi M, Alizargar J, Hsieh N-C, S-FV Wu. Prophylactic anticoagulant therapy for reducing the risk of stroke and other thrombotic events in COVID-19 patients. *Journal of the Formosan Medical Association*. 2020. <http://dx.doi.org/10.1016/j.jfma.2020.05.005>. In press.
5. Rothan HA, Byrareddy SN. The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. *J Autoimmun*. 2020;109:102433. <http://dx.doi.org/10.1016/j.jaut.2020.102433>.

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