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COVID-19 Incidence in Filaraisis Endemic Area: Implication

Filariasis Endemik Bölgesinde COVID-19 İnsidansı: Çıkarım

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Dear Editor,

Coronavirus disease-2019 (COVID-19) is still present big global problem. Finding for effective drug against severe acute respiratory syndrome-coronavirus-2 is ongoing. Of several new proposals, ivermectin is an interesting candidate (1). Clinically, ivermectin is an effective antiparasitic drug. It is also used as a main drug for management of filariasis. In some countries, such as India and Southeast Asian countries, the drug is currently used for filariasis prophylaxis. However, there is still a high incidence of COVID-19 in those countries (2). However, there is still limited data on area specific rate of COVID-19 in the settings where filariasis is endemic and ivermectin is regularly used. Here, the authors discuss on available COVID-19 statistics from an Indochina country, where COVID-19 has been occurred since early 2020.

The local available data from local Ministry of Public Health on COVID-19 (most update data on 14th August 2021) are retrospectively analyzed. The focused area is the northern region of the country, consisting 9 provinces, of which 1 province are classified as an endemic area of filariasis and ivermectin is locally widely used for disease control. The association between incidence of COVID-19 and endemic nature of filariasis is assessed (Table 1). Based on the analysis, the incidence of COVID-19 in the province which is an endemic nature of filariasis is lower than all other provinces which are non-endemic area of filariasis. However, from correlation analysis, there is no significant negative correlation between incidence of COVID-19 and endemic nature of filariasis (r=-0.209, p=0.589). This is an interesting observation which might imply a possible role of routine ivermectin medication in the filariasis endemic area. This real world data might be an evidence to support further study on role of ivermectin against COVID-19.

Table 1. Incidence of COVID-19 and endemic nature of filariasis

Province no.	Endemic nature of filariasis	Incidence of COVID-19 (case/100,00 local population)
1	No	2.94
2	No	3.51
3	No	1.72
4	No	49.33
5	No	6.95
6	No	4.67
7	No	3.90
8	Yes	1.41
9	No	15.38

COVID-19: Coronavirus disease-2019

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