

Role of ivermectin in the prevention of SARS-CoV-2 infection among healthcare workers in India: A matched case-control study

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Abstract

Background: Ivermectin is one among several potential drugs explored for its therapeutic and preventive role in SARS-CoV-2 infection. The study was aimed to explore the

association between ivermectin prophylaxis and the development of SARS-CoV-2 infection among healthcare workers.

Methods: A hospital-based matched case-control study was conducted among healthcare workers of AIIMS Bhubaneswar, India, from September to October 2020. Profession, gender, age and date of diagnosis were matched for 186 case-control pairs. Cases and controls were healthcare workers who tested positive and negative, respectively, for COVID-19 by RT-PCR. Exposure was defined as the intake of ivermectin and/or hydroxychloroquine and/or vitamin-C and/or other prophylaxis for COVID-19. Data collection and entry was done in Epicollect5, and analysis was performed using STATA version 13. Conditional logistic regression models were used to describe the associated factors for SARS-CoV-2 infection.

Results: Ivermectin prophylaxis was taken by 76 controls and 41 cases. Two-dose ivermectin prophylaxis (AOR 0.27, 95% CI, 0.15-0.51) was associated with a 73% reduction of SARS-CoV-2 infection among healthcare workers for the following month. Those involved in physical activity (AOR 3.06 95% CI, 1.18-7.93) for more than an hour/day were more likely to contract SARS-CoV-2 infection. Type of household, COVID duty, single-dose ivermectin prophylaxis, vitamin-C prophylaxis and hydroxychloroquine prophylaxis were not associated with SARS-CoV-2 infection.

Conclusion: Two-dose ivermectin prophylaxis at a dose of 300 µg/kg with a gap of 72 hours was associated with a 73% reduction of SARS-CoV-2 infection among healthcare

workers for the following month. Chemoprophylaxis has relevance in the containment of pandemic.

Conflict of interest statement

The authors have declared that no competing interests exist.

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