

# Authors Reply to Readers' Questions about Ivermectin Use in COVID-19 Prophylaxis

WAHEED M SHOUMAN<sup>1</sup>, ABDELMONEM AWAD HEGAZY<sup>2</sup>

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## To the Editor:

Our clinical trial research entitled "Use of Ivermectin as a Potential Chemoprophylaxis for COVID-19 in Egypt: A Randomised Clinical Trial" was recently published in the Journal of Clinical and Diagnostic Research [1]. According to readers' questions sent to the journal, we would like to clarify their points.

**First point:** The study reports that of severity of the disease in index cases in the two groups was 14, 135 and 54 and 20, 43 and 38 for mild, moderate and severe, respectively. The probability that this is due to chance is 0.000063. This means that the probability that the study is truly randomised is far below 0.001.

**Reply:** We wrote the following in the article: "The protection rate was highly significant whatever the severity of index cases with p-values of 0.001, <0.001 and <0.001 for mild, moderate and severe cases, respectively." Also, we did randomisation for index cases and contacts, not for severity. It is clear in our results that the randomisation was performed for the index cases as a whole; and they were not sub-grouped initially according to severity of index cases or the number of contacts of each case. Then, we randomised the index cases and their contacts not depending on numbers of contacts; just randomised on the bases of having positive swab index case, whatever the severity and at the same time having a close family contact that could be traced and can precipitate in study. The protection was highly significant whatever the severity of index cases. This was noticed only after performance of statistical analysis.

**Second point:** The study recruits between 1<sup>st</sup> June and 28<sup>th</sup> July 2020 and is submitted on 16<sup>th</sup> September, which is given the two-week follow-up rate very fast.

**Reply:** We wrote the followings: "We did a follow-up on our study participants for 14 days. This is depending on documented incubation period of COVID-19 that ranges from 1-14 days, with a mean of 5-6 days [13]." Moreover, 11 chest physicians have share in the study; 4 of them have been acknowledged at the end of the text. As swab performance was low at the same time, each of the physicians had at least one swab positive case during his/her daily clinical practice. This denotes that it was so simple to execute the study in a very short time at that rate of cases, keeping in mind the two weeks follow-up. All 11 chest physicians have their private clinics and work at Zagazig University Isolation Hospitals and other Isolation Hospitals. N.B.: Our locality "Sharkia Governorate"

has around 8 million people. It was not fast, but we and most previous studies noticed that the incubation is mostly less than 14 days; ranging from 1-14 days. We also wrote the following in the paper itself: "Chest physicians contributing in this work were responsible for simultaneous randomisation and follow-up of participants, as they diagnosed and referred the index cases. It was carried out at the faculty of Medicine, Zagazig University, Egypt; the period from June 1 to July 28, 2020." At the previously mentioned time, the numbers of cases were high; as Egypt was in the first wave of pandemic.

**Third point:** As the participants were all non hospitalized at recruitment it is remarkable that this study was executed without budget.

**Reply:** Most of our studies registered in the university have no allotted grants. All the steps of this work have been done by the authors themselves without receiving any funding. Treatment for each contact is cheap as each 8 tablets (6 mg) of Ivermectin (generic name Iverzine) costs 15 Egyptian pounds equaling less than one USD.

**Fourth point:** The treatment is remarkably strong, 7.4% versus 58.4%.

**Reply:** That is why we believe in efficacy of ivermectin as prophylaxis as the results were excellent and denotes effectiveness. Yes, we wrote the followings in our paper: "The protection was noticed to be of high values in both uni- and multivariate analysis." Furthermore, the protection offered by use of ivermectin till present still can be noticed daily in the cases from our localities. We just tried to record what we saw and conducted this trial to assist in combating the current pandemic that has swept the world.

Finally, we declare that we have no conflict of interest with anyone else. At the same time, we recommend further investigation into the efficacy of ivermectin for the prevention of COVID-19, which is very easy and not time consuming and does not cause an economic or health burden. This also does not require great facilities except for volunteers to participate in the investigation.

## REFERENCES

- [1] Shouman WM, Hegazy AA, Nafae RM, Ragab MI, Samra SR, Ibrahim DA, Al-Mahrouky TH, Sileem AE. Use of Ivermectin as a Potential Chemoprophylaxis for COVID-19 in Egypt: A Randomised Clinical Trial. Journal of Clinical and Diagnostic Research. 2021 Feb 1;15(2): OC27-OC32.

### PARTICULARS OF CONTRIBUTORS:

1. Professor, Department of Chest Medicine, Zagazig University, Faculty of Medicine Zagazig, Al-Sharkia, Egypt.
2. Professor, Department of Medical Biotechnology, Misr University for Science and Technology, College of Biotechnology, 6<sup>th</sup> of October City, Egypt.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Abdelmonem Awad Hegazy,  
Professor, Department of Medical Biotechnology, Misr University for Science and Technology, College of Biotechnology, 6<sup>th</sup> of October City, Egypt.  
E-mail: dr.abdelmonemhegazy@yahoo.com

### AUTHOR DECLARATION:

- Was informed consent obtained from the subjects involved in the study? NA
- For any images presented appropriate consent has been obtained from the subjects. NA

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