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NEWS

Covid-19: Hydroxychloroquine was ineffective as postexposure prophylaxis, study finds

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Taking hydroxychloroquine after high or moderate risk exposure to covid-19 does not prevent illness in asymptomatic people, according to a study of 821 patients.[1]

Researchers from the US and Canada carried out a randomised, double blind, placebo controlled trial to test hydroxychloroquine as post-exposure prophylaxis. They found that the incidence of new illness compatible with the virus did not significantly differ between the hydroxychloroquine and placebo groups.

The team found, however, that side effects were more common in the hydroxychloroquine group, although no serious adverse reactions were reported.

The researchers enrolled 821 asymptomatic adults who had household or occupational exposure to someone with confirmed covid-19 at a distance of less than six feet for more than 10 minutes without any or some protective face gear (mask and eye shield).

Within the first four days after exposure, the participants were randomly assigned to receive either placebo or hydroxychloroquine (800 mg once, followed by 600 mg in six to eight hours, then 600 mg daily for four additional days).

The results, reported in the *New England Journal of Medicine*, showed that new covid-19 (either polymerase chain reaction confirmed or symptomatically compatible) developed in 107 of 821 participants (13.0%) during the 14 days of follow up and did not differ significantly between the two groups.

One hospitalisation was reported in each group and there were no deaths, although side effects were more common with hydroxychloroquine than with placebo (40.1% *v* 16.8%).

Across the two groups, the most common reason people stopped taking hydroxychloroquine (17 participants) or placebo (8) was side effects. The most common side effects were nausea (22.9% *v* 7.7% in the placebo group) and diarrhoea, abdominal discomfort, or vomiting (23.2% *v* 4.3%).

Among all participants who developed illness, the most frequent symptoms were cough (44.9%), fever (34.6%), shortness of breath (18.7%), fatigue (49.5%), sore throat (40.2%), myalgia (37.4%), and anosmia (23.4%).

The authors concluded that hydroxychloroquine "did not prevent illness compatible with covid-19 or confirmed infection when used as postexposure prophylaxis within four days after exposure."

They highlighted several limitations, including that as testing was mostly unavailable, they could not confirm most of the subsequent cases of the virus and had to rely on a clinical case definition for suspected covid-19.

They also noted that most of the participants were "generally younger and healthier than those at risk for severe covid-19," but said that while the risk of developing a severe form of the virus is related to age and coexisting conditions, "the risk of acquiring symptomatic infection is generally still present among adults, regardless of age."

The findings come as doctors in India have raised concerns over the Indian Council of Medical Research recommending hydroxychloroquine prophylaxis for healthcare workers and the police, without randomised control trials to assess the effectiveness.[2]

1 Boulware DR, Pullen MF, Bangdiwala AS, et al. A randomized trial of hydroxychloroquine as postexposure prophylaxis for covid-19. NEJM. June 2020. www.nejm.org/doi/full/10.1056/NEJMoa2016638.
2 BMJ India Correspondent. Covid-19: Doctors criticise Indian research agency for recommending hydroxychloroquine prophylaxis. *BMJ* 2020;369:m2170. 10.1136/bmj.m2170 32471832