Neem (Azadirachta Indica A. Juss) Capsules for Prophylaxis of COVID-19 Infection: A Pilot, Double-Blind, Randomized Controlled Trial

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Abstract

Context: SARS-CoV-2 is a global public-health concern. Interventions to prevent infection are urgently needed. The anti-inflammatory and antiviral effects of neem make it a potential agent for COVID-19 prophylaxis.

Objective: The study intended to evaluate the prophylactic effects of neem capsules for persons at high risk of COVID-19 infection due to contact with COVID-19 positive patients.

Participants: Participants were 190 healthcare workers at the hospital or relatives of patients with COVID-19 infection.

Intervention: Of the 190 participants, 95 were in the intervention group and 95 in the control group. Participants received 50 mg of a proprietary, patent-pending, neem-leaf extract or a placebo orally in capsules, twice a day for 28 days.

Results: The mean age of participants was 36.97 years, and 68.42% were male. Total 13 subjects tested positive during the study. All were asymptomatic. Of the 154 participants who completed the study per-protocol, 11 tested positive, 3 in the intervention group and 8 in the control group. The probability of COVID-19 infection in participants receiving the intervention was 0.45 times that of participants receiving the placebo, a relative risk of 0.45, with the **effectiveness of the intervention being around 55%**. Treatment-emergent adverse events (TEAEs) in both groups were minimal and were of grade 1 or 2 in severity. Biomarkers and QOL remained stable in both groups.

Conclusions: The study found a reduced risk of COVID-19 infection in participants receiving neem capsules by 55%, which demonstrates its potential as a prophylactic treatment for the prevention of COVID-19 infection. The findings warrant further investigation in clinical trials.