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# Early Hydroxychloroquine Is Associated with an Increase of Survival in COVID-19 Patients: An Observational Study

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## Abstract

**Background:** There is no treatment proven effective against COVID-19. Several drugs with in vitro potential against SARS-CoV-2 virus have been proposed. Hydroxychloroquine has in vitro anti-viral and immunomodulatory activity, but there is no current clinical evidence of its effectiveness changing the outcome of the disease. **Methods:** We enrolled all 18-85 years old inpatients from Central Defense Hospital "Gómez Ulla", Madrid, Spain, who were hospitalised for COVID-19 and had a definitive outcome (dead or discharged). We used a statistical survival analysis to detect treatment differences associated with in-hospital death. **Results:** We analysed first 220 medical records. 166 patients met the inclusion criteria. 48,8 % of patients not treated with HCQ died, 22% of those treated with hydroxychloroquine ( $p=0,002$ ). According to clinical picture at admission, hydroxychloroquine increased the mean cumulative survival in all groups from 1,4 to 1,8 times. This difference was statistically significant in the mild group. **Conclusions:** in a cohort of 166 patients from 18 to 85 years hospitalised with COVID-19, hydroxychloroquine treatment with 800mg added loading dose increased survival when patients were admitted in early stages of the disease. There was a non-statistically significant trend towards survival in all groups, which will have to be clarified in subsequent studies.

## Subject Areas

COVID-19; treatment; drug; survival; antiviral; hydroxychloroquine

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