

Vitamin C infusions for COVID-19 improve oxygen support status and reduce the mortality risk

Retrospective cohort study

Conclusion

The results of the retrospective cohort study with supportive vitamin C infusions* show:

- A significant reduction in the mortality risk
- Improved oxygen support status
- Very good tolerability

Study design

The retrospective, single-centre cohort study included 76 COVID-19 sufferers who were hospitalised at Tongji Hospital (University of Science and Technology, Wuhan, China) between 31 January 2020 and 28 March 2020. Forty-six patients received supportive vitamin C infusions* in addition to the standard therapy. Two infusions of 6 g vitamin C were given on the first day of treatment and 6 g per infusion on the four following days. The primary study endpoints were 28-day mortality and clinical improvement; the secondary endpoint was oxygen support status.

Results

Half of the patients were younger than 61 and the symptoms had been present for at least 12 days in 50% of the patients. At the start of treatment, 63.2% of patients had moderate COVID-19 disease and 36.8% had severe or critical COVID-19 disease. The two treatment groups did not differ in baseline characteristics, including laboratory data.

Mortality: The mortality risk was significantly reduced by 86% per day in the vitamin C cohort (HR = 0.14, 95% CI, 0.03 – 0.72). (Fig. 1)

Oxygen support status: The oxygen support status improved more through use of high-dose vitamin C than with standard therapy (63.9% vs. 36.1%).

Inflammation: Serum levels of high-sensitivity C-reactive protein, procalcitonin and interleukin-8 were significantly reduced in the vitamin C cohort.

Tolerability: The vitamin C infusion therapy was very well tolerated. The incidence of adverse events, such as thrombocytopenia or elevated bilirubin levels, and severe events, such as ARDS, was lower in the vitamin C cohort.

Although vitamin C from Pascoe was not used in this study, we are obliged by the EU Directive (Directives 92/28/EEC and 2000/31/EC) to provide the mandatory text for your information.

The country-specific mandatory texts or technical information (spc) can be found here.

Publication

Gao, D., et al., The efficiency and safety of high-dose vitamin C in patients with COVID-19: a retrospective cohort study. Aging (Albany NY), 2021. 13.

Vitamin C infusions for COVID-19 improve oxygen support status and reduce the mortality risk Retrospective cohort study

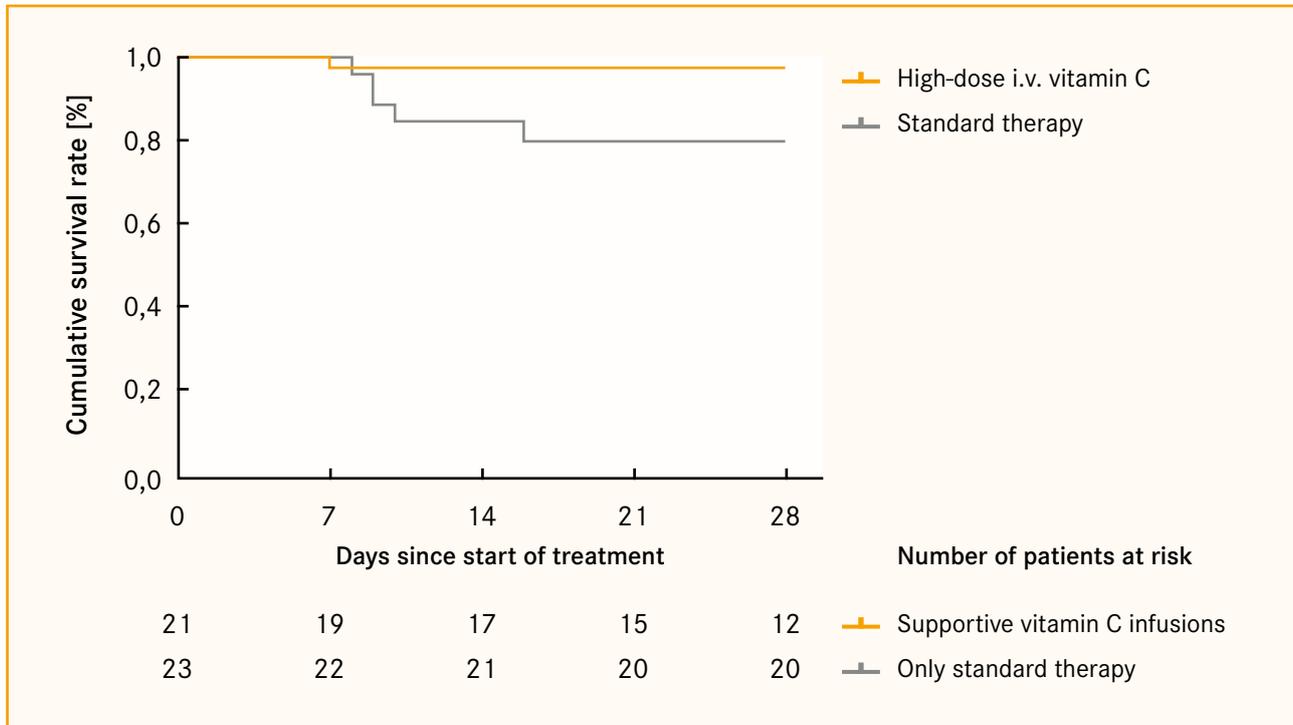


Fig. 1: Kaplan-Meier curve. The mortality risk was significantly reduced by 86% per day in the vitamin C cohort (HR=0.14, 95% CI, 0.03 – 0.72, p=0.037).

Although vitamin C from Pascoe was not used in this study, we are obliged by the EU Directive (Directives 92/28/EEC and 2000/31/EC) to provide the mandatory text for your information.

The country-specific mandatory texts or technical information (spc) can be found here.