

Cite this as: Shao-rui HAO, Ren YAN, Shan-yan ZHANG, Jiang-shan LIAN, Huan CAI, Xiao-li ZHANG, Lin ZHENG, Hong-yu JIA, Jian-hua HU, Guo-dong YU, Jue-qing GU, Chan-yuan YE, Ci-liang JIN, Ying-feng LU, Jiao-jiao XIN, Ji-fang SHENG, Yi-da YANG, 2020. Interferon- α 2b spray inhalation did not shorten virus shedding time of SARS-CoV-2 in hospitalized patients: a preliminary matched case-control study. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, **21**(8):628-636.
<http://dx.doi.org/10.1631/jzus.B2000211>

Interferon- α 2b spray inhalation did not shorten virus shedding time of SARS-CoV-2 in hospitalized patients: a preliminary matched case-control study

Key words: Coronavirus disease 2019 (COVID-19), Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), propensity score match, interferon

Research Summary

This article mainly focused on evaluate the treatment effect of interferon on coronavirus disease 2019 (COVID-19).

- **104 confirmed COVID-19 patients were enrolled, 68 in interferon group,36 in control group.**
- **Interferon α 2b spray inhalation at a dosage of 100,000 U, four times a day, for 7 days were used.**
- **Demographic, clinical and outcome features were compared before and after propensity score matching.**

Before matching

- 68 in interferon group, 36 in control group.
- More hypertension, dyspnea and diarrhea in control group, more myalgia in INF group .
- Lower albumin and sodium level in control group, higher C-reactive protein in control group.
- Higher rate of Lopinavir/Ritonavir, lower dose of glucocorticoids in INF group
- Lower rate of mechanical ventilation, ICU admission, and critical patients in INF group.

INF vs. Control

- Virus shedding time:
10 vs. 13 days, **$p=0.014$**

After matching

- 32 matched pairs.
- Comparable hypertension, dyspnea, diarrhea and myalgia between groups.
- Albumin, sodium, and C-reactive protein level balanced.
- Similar medication plan.
- Severity balanced between groups.

- Virus shedding time:
12 vs. 15 days, **$p=0.206$**