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Interferon-α2b 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 α2b 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.**

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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.

- 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.

INF vs. Control

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

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