Background

- Efficacy and safety of high doses glucocorticoids for the treatment of COVID-19 has shown mixed outcomes.
- We try to evaluate the effectiveness of methylprednisolone bolus vs. dexamethasone 6 mg in patients with severe COVID-19.

Material and Methods

- Randomized, open-label, controlled trial
- February - August 2021
- Trial suspended after first interim analysis → investigators considered continuing the trial would be futile
- Randomisation 1:1 ratio
  - dexamethasone 6 once daily for up to 10 days
  - methylprednisolone 250 mg once

Results

n: 128 (125 patients analyzed) 66 % Age: 60y ±17

Comparison

All patients in group 5 WHO clinical progression scale (hospitalized, with oxygen or nasal mask) at randomization.

90 days of follow-up

128 randomly assigned
125 included into analysis

63 allocated to methylprednisolone 250 mg (equivalent to approximately 1250 mg of hydrocortisone)

62 allocated to dexamethasone 6 mg (equivalent to approximately 160 mg of hydrocortisone)

Efficacy

Mortality at 28 days (modified intention-to-treat: mITT) 5 %

Absolute risk difference (95% CI) 0.1% (-8.8 to 9.1) 5 %

Admission to intensive care unit (ICU) at 28 days (mITT) 16 %

1.4% (-14.2 to 11.5) 15 %

Intubation at 28 days (mITT) 13 %

1.0% (-13.0 to 11.1) 12 %

Safety

Hyperglycaemia at 28 days (mITT) 27 %

18.9% (5.6 to 31.8) 8 %

Secondary infections at 28 days (mITT) 11 %

-1.8% (-10.1 to 13.7) 13 %

Conclusions

Among severe but not critical patients with COVID-19, 250 mg/d for 3 days of methylprednisolone compared with 6 mg/d for 10 days of dexamethasone did not result in a decrease in mortality or intubation.