Background and importance SARS-CoV-2 infection has different stages and there are different targets for possible treatment. Corticosteroid therapy is one treatment, and information on the experience of hospitals in the first months of a pandemic can be very useful in providing more evidence for routine clinical practice.

Aim and objectives To describe the use of systemic corticosteroids in the treatment of SARS-CoV-2 infection as well as the characteristics of the treated population.

Material and methods This was a retrospective observational study conducted in patients with confirmed SARS-CoV-2 infection between March and May 2020. Variables collected were: sex, age, date of admission and hospital discharge, comorbidities (respiratory pathology, arterial hypertension (AHT), diabetes mellitus (DM)), concomitant treatment with remdesivir and/or tocilizumab, stay in intensive care unit (ICU) and/or hospital ward, type of corticosteroid administered, dose, treatment duration and length of hospital stay. Variables were obtained from the electronic medical record programmes.

Results 102 patients were studied, 84 on the ward and 18 in the ICU, 66% men, with a mean age of 63±16 years. Eight patients had respiratory pathology, 44 AHT and 30 DM. Three patients received remdesivir and 55 tocilizumab. Classifying patients by comorbidities, corticosteroids were given to 63% of patients with respiratory disease, 41% with AHT and 30% with DM. Regarding concomitant treatment, 33% of patients treated with remdesivir and 40% with tocilizumab received corticosteroids. In total, 30 patients received corticosteroid treatment, 23 on the ward and 7 in the ICU. On the ward, the mean daily dose of methylprednisolone was 122 mg/day, with a mean duration of 4.5 days, while for prednisone it was 18 mg/day, with a duration of 1.7 days. In the ICU, the mean daily dose of methylprednisolone was 112 mg/day, with a duration of 5.8 days, and for prednisone, 12 mg/day, with a duration of 5.8 days. One patient received a single dose of 8 mg of dexamethasone. Mean hospital stay for ICU patients who received corticosteroids was 39.3 days compared with 26.3 days for those who did not receive corticosteroids; on the ward, mean stay was 20.5 and 10.8 days, respectively.

Conclusion and relevance Patients treated with corticosteroids required longer hospital stays, especially for ICU patients. Methylprednisolone dose was similar in the ICU and on the ward, but treatment duration was longer in the ICU. A high percentage of patients with comorbidities and treatment with remdesivir and/or tocilizumab required subsequent corticosteroid treatment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest