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Calcineurin-inhibitors/prednisone

Coronavirus disease 2019 pneumonia: 3 case reports

In a single-centre, retrospective, descriptive, multi-ethnic cohort study of thirty kidney transplant recipients with coronavirus disease 2019 (COVID-19) pneumonia admitted to a hospital in the USA between 18 March 2020 and 10 April 2020, 3 patients including a 70-year-old man* [not all ages and sexes stated] were described, who developed COVID-19 pneumonia during immunosuppressive treatment with prednisone and an unspecified calcineurin-inhibitor [not all dosages and outcomes stated; routes and durations of treatments to reactions onsets not stated].

The patients, who had previously undergone renal transplant, had chronic kidney disease (CKD) stage 3 (n=1), CKD stage 2 (n=1) and CKD stage 4 $(n=1)^{**}$ at baseline. They had been receiving immunosuppressive treatment with prednisone 5mg and an unspecified calcineurin-inhibitor. They were diagnosed to have COVID-19 pneumonia based on bilateral patchy infiltrates, which were observed on radiographic imaging. It was noted that they developed COVID-19 pneumonia secondary to the immunocompromised state due to the immunosuppressive treatment with prednisone and an unspecified calcineurin-inhibitor.

Therefore, the patients were admitted to the inpatient unit at a hospital in the USA. The unspecified calcineurin inhibitor was held for the duration of hospitalisation, while they continued to receive immunosuppressive treatment with prednisone 5mg. Additionally, they started receiving off-label treatment with hydroxychloroquine and azithromycin. Concomitantly, they received sodium chloride [normal saline] until volume status were normalised and serum creatinine decreased. Two patients, who CKD stage 2 (n=1) and stage 3 (n=1), experienced acute kidney injury, for which they required renal replacement therapy during admission. One patient, who had CKD stage 2, required mechanical ventilation due to COVID-19 pneumonia, and the patient remained intubated at the time of report.

- * Identifying patient details (age and sex) have been obtained through direct communication with the author.
- ** Patient with CKD stage 4 has been identified from table 1.

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