

COVID-19 Positive Kidney Transplant Recipients behave differently compared to non-transplant patients' ICU: single center experience.

Authors

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Introduction

- **COVID-19 is an ongoing pandemic that has altered our lives especially that of kidney transplant recipients (KTR).**

Introduction

- **Kidney transplant recipients (KTRs) seem to be at a greater risk of acute kidney injury (AKI), need for renal replacement therapy (RRT), longer hospital stay and intensive care unit (ICU) stay due to COVID-19 infection when compared to the general population. However, the risk of death may not be significantly different.**

Introduction

- **kidney transplant recipients are at a significantly higher risk for severe COVID-19 complications, such as AKI and ICU admission, compared to non-transplant patients, although mortality rates may be similar when adjusting for comorbidities and other factors.**
- **This suggests the need for heightened preventive measures and careful management of immunosuppression for kidney transplant recipients during the COVID-19 pandemic.**

Aim of the study

- We aimed to compare the of COVID-19 positive KTR with non-transplant positive cases that were managed in the intensive care unit (ICU) during the pandemic.**

Patients and methods

- **Out of 2000 KTR that were followed up in Hamed Al-Essa Organ transplant center in Kuwait, we collected data of all COVID-19-positive KTR (group 1, n=79) till the end of January 2021.**

Patients and methods

- **Clinical features, management details, and both patient and renal outcomes were reported and compared with (group 2, n=445) non-transplant cases admitted during the same period in the ICU during the pandemic.**

Results

- **Most of cases were males (74% vs.73%), aged 51.7±16 and 60.8± 14 years, respectively. Both groups were comparable regarding patients with diabetes mellitus (50.6 vs. 55.2%), hypertension (62% vs 57.1%), ischemic heart disease (20% vs 19.8%) and chronic kidney disease (1.3% vs 1.6%).**

Results

- **Fever, cough, body aches and gastrointestinal symptoms were the most frequent presentation among KTR. Meanwhile, complicated cases with sepsis, volume depletion, shock, and ARDS predominated among the non-transplant group ($p < 0.05$).**

Results

- **Therapeutic management included anticoagulation (81 %) in both groups, while steroid and tocilizumab were used frequently among non-transplant group (8.7%).**

Results

- **Within 30 days follow up, in group 2 we found that acute kidney injury, respiratory failure requiring mechanical ventilation, and mortality rate were significantly higher.**

Conclusion

- **We reported better outcome of ICU admitted COVID-19 positive KTR in comparison with the non-transplant patients possibly due to the younger age and modified immunosuppression.**