

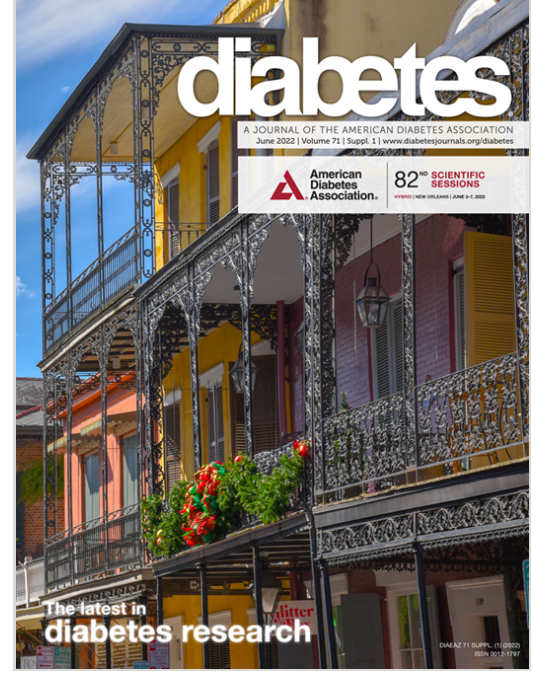
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OR: TRANSPLANTATION | JUNE 01 2022

111-OR: Response to COVID-Vaccination and Infection in Islet Transplant Recipients

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Background: Since response to COVID-vaccine among transplant recipients remains diminished comparing to general population, we decided to assess effect of COVID-specifically among islet transplant patients.

Methods: Response to COVID-infection and vaccine was assessed in a cohort of 20 islet transplant recipients: N=13 after islet transplant alone (ITx) , N=7 with islet after kidney (IAK) or pancreas after islet transplantation (PAI) . The median age was 48 years (25-62) . Maintenance immunosuppression included tacrolimus and an antimetabolite in addition to 5mg of Prednisone in IAK and PAI recipients. Nine patients received booster.

Results: Seven patients (38%) chose not to be vaccinated and 4 (57%) of them remained COVID-free with no SARS-CV-2 Spike total antibody (Spike ab) present in their blood. The other three patients (43%) developed only mild symptoms of infection with a high level of Spike ab (>2,500 U/ml) afterwards. In contrast, all remaining 13 patients (62%) , who were vaccinated while on immunosuppression for a median of 7 years (0.5-16) , remained COVID-free (p=0.11, Fischer) . The level of Spike ab in response to vaccine varied: undetected- (N=4) , in range 1-100U/ml (N=6) , around 400U/ml (N=2) , and above 2,500U/ml (N=1) . Presence of 5mg of Prednisone did not affect the outcomes. Booster was administered in patients and increased the level of Spike ab above 100U/ml in all of them, in 7 (78%) to over 2,500 U/ml. One patient responded neither to vaccine nor to booster. There were no SAEs related to the vaccination or booster. Islet graft function remained stable in all but one patient after initial vaccination or COVID-19.

Conclusion: Nearly half of unvaccinated islet transplant recipients developed Covid-19, however, all of them presented only with mild symptoms. In contrast, none of vaccinated transplant patients developed COVID-infection with 69% rate of seroconversion. Booster increased level of the Spike ab in those patients who responded to the original vaccination.

Disclosure
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