

中文題目：未打 COVID19 疫苗的腎移植病人確診後抗體反應仍不佳

英文題目：Kidney transplant patients have poor immune response after COVID 19 infection while they had no COVID19 vaccination before

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Introduction:

SARS-CoV-2 infection with different severity and may increase mortality possibility in immune immunocompromised patients. Therefore, COVID 19 vaccination is one major protection policy for reducing the risk of becoming severe COVID 19 infection. However, several side effects of COVID 19 vaccine are reported from the social media which made lots of people worry about if the side effect may even cause death or graft rejection. Therefore, there are still some kidney transplantation patients in our center refuse to have COVID 19 vaccination. Our government's epidemic prevention policy requests the post COVID 19 infected patient all need to wait three months and then they can have the next COVID 19 vaccine booster. We are curious about our kidney transplantation's immune response after they have COVID 19 infection.

Material and Method

We confirm our kidney transplantation patient's blood sample after they had COVID 19 infection. We confirmed their serum SARS-CoV-2 Spike IgG level through ELISA and Interferon-gamma (IFN γ) release assay testing ELISA for specific T-cell response.

Result

There are three kidney transplantation patient without COVID 19 vaccination. case 1 became severe illness and need to hospitalization for 3 weeks complicated with heart failure and respiratory failure which need high flow nasal cannula support. Both case 2 and case 3 didn't need hospitalization but had high fever several days with poor appetite and fatigue for at least two weeks. The IFN γ level of case 1, 2, 3 are 83.9 mIU/ml, 34.4 mIU/ml, and 110.4. mIU/ml. The SARS-CoV-2 Spike IgG level of case 1,2,3 are 3.8 AU/ml, 3.4 AU/ml and 384.6 AU/ml. The median level of IFN γ to our kidney transplantation patients with complete 3 dose is 137.7 mIU/ml. The median level of SARS-CoV-2 Spike IgG to our kidney transplantation patients with complete 3 dose is 1657 AU/ml.

Conclusion

According to above result, we will suggest our kidney transplantation patients to have COVID 19 vaccination because the immune response after COVID 19 infection may not enough for them to avoid next COVID 19 infection.