

Global Summit on **NEPHROLOGY, UROLOGY AND KIDNEY TRANSPLANTATION**

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**Evaluation of Sars Cov-2 serum level in patients vaccinated with Sinopharm/BBIBP-CorV with kidney transplantation****Maryam Rahbar<sup>1</sup>, Reza Kazemi<sup>2</sup>, Hanieh Salehi<sup>3</sup>, Pouria Ghasemi<sup>4</sup>, Mohammad Naghizageh<sup>4</sup>, Sanaz Dehghani<sup>5</sup>, Mahin Ahmadi Pishkuhi<sup>6</sup>, Seyed Mohammad Kazem Aghamir<sup>1</sup>**<sup>1</sup>*Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran*<sup>2</sup>*Department of Urology, Al-Zahra Hospital, Isfahan University of Medical Sciences, Isfahan, Iran*<sup>3</sup>*School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran*<sup>4</sup>*Isfahan University of Medical Sciences, Isfahan, Iran*<sup>5</sup>*Organ Procurement Unit, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran*<sup>6</sup>*Pars Advanced and Minimally Invasive Medical Manners Research Center, Pars Hospital, Iran University of Medical Science, Tehran, Iran*

**Introduction:** Every year, a large number of people undergo kidney transplants because of various reasons leading to renal failure. These patients usually have low immunoglobulin levels due to the use of immunosuppressive drugs. With the immune system compromised as to not reject the transplanted organ, such patients are at the risk of viral and bacterial infections. In recent years the COVID-19 pandemic has been a major global health risk. With immunocompromised, diabetic patients and those with a previous history of COPD being especially at risk.

**Method:** in this study, we enrolled 156 patients who had undergone kidney transplant and had received two doses of Sinopharm/BIBP-CorV. These patients were recalled and their serum antibody levels (IgG and IgM) were measured using a sandwich ELISA kit to evaluate if different immunosuppressive drugs could affect the body's response to the said vaccine.

**Result:** our analysis shows that of the various drugs used as immunosuppressant's, only the patients receiving Rapamune have had increased IgM secondary to COVID-19 vaccine. None of the immunosuppressive drugs in this study have shown a positive correlation with increased IgG levels. The only factor that showed a significant effect on both IgM and IgG was a positive history of COVID-19, which was correlated with increased levels of serum IgG/M with.

**Conclusion:** we conclude that only the patients being treated with Rapamune show an acute immune reaction to the vaccine in the form of positive serum IgM levels, and no rise of serum IgM antibody was observed in COVID-19 naive patients. the patients who had a previous history of COVID-19 infection, showed an elevated serum IgM and IgG level. Suggesting that vaccines in general and Sinopharm/BIBP-CorV in particular, are not enough to ensure immunity against COVID-19 in transplant patients. We recommend further studies to be done using different types of vaccines and immunosuppressive drugs.