

## ABSTRACT

The objective of this study was to detect the antibody level of both IgG and IgM antibody (Post Vaccination). Sample size was 157 for this study. 3cc blood was collected from each enrolled participant of the study. Blood samples were centrifuged and serum was collected in serum cups. In this study gender respondent of study population were also observed. Results showed that out of total 157 participants, 57 (36.31%) were females and 100 (63.69%) were male patients. In this study|anti-spike antibodies levels were observed against four different types of vaccine: Astra Zeneca, CanSino-Bio, Sinopharm and Sinovac. From total 157 participants, 73 (46.50) exhibit Sinopharm, 45 (28.66%) exhibit Astra Zeneca, 29 (18.47%) exhibit Sinovac and 10 (6.37%) participants exhibit CanSino-Bio, most participant's exhibit Sinopharm. Results of our study provides a better understanding for the immunological response and epidemiology of SARS-CoV-2 vaccination and post vaccination reactions in gender, age groups, literacy rate and in different occupations. This study may also help public health authorities of Pakistan for adaption of proper preventive measures to limit spread of SARS-CoV-2 and to immunize the population by administering different COVID-19 vaccines.