Study of COVID-19 Intensity Correlated with Specific Biomarkers and Environmental Factors

Authors : Satendra Pal Singh, Dalip Kr. Kakru, Jyoti Mishra, Rajesh Thakur, Tarana Sarwat

Abstract : COVID-19 is still an intrigue as far as morbidity or mortality is concerned. The rate of recovery varies from person to person, & it depends upon the accessibility of the healthcare system and the roles played by the physicians and caregivers. It is envisaged that with the passage of time, people would become immune to this virus, and those who are vulnerable would sustain themselves with the help of vaccines. The proposed study deals with the severeness of COVID-19 is associated with some specific biomarkers linked to correlate age and gender. We will be assessing the overall homeostasis of the persons who were affected by the coronavirus infection and also of those who recovered from it. Some people show more severe effects, while others show very mild symptoms, however, they show low CT values. Thus far, it is unclear why the new strain of Covid has different effects on different people in terms of age, gender, and ABO blood typing. According to data, the fatality rate with heart disease was 10.5 percent, 7.3 percent were diabetic, and 6 percent who are already infected from other comorbidities. However, some COVID-19 cases are worse than others & it is not fully explainable as of date. Overall data show that the ABO blood group is effective or prone to the risk of SARS-COV2 infection, while another study also shows the phenotypic effects of the blood group related to covid. It is an accepted fact that females have more strong immune systems than males, which may be related to the fact that females have two 'X' chromosomes, which might contain a more effective immunity booster gene on the X chromosome, and are capable to protect the female. Also specific sex hormones also induce a better immune response in a specific gender. This calls for in-depth analysis to be able to gain insight into this dilemma. COVID-19 is still not fully characterized, and thus we are not very familiar with its biology, mode of infection, susceptibility, and overall viral load in the human body. How many virus particles are needed to infect a person? How, then, comorbidity contribute to coronavirus infection? Since the emergence of this virus in 2020, a large number of papers have been published, and seemingly, vaccines have been prepared. But still, a large number of questions remain unanswered. The proneness of humans for infection by covid-19 needs to be established to be able to develop a better strategy to fight this virus. Our study will be on the Impact of demography on the Severity of covid-19 infection & at the same time, will look into gender-specific sensitivity of Covid-19 and the Operational variation of different biochemical markers in Covid-19 positive patients. Besides, we will be studying the co-relation, if any, of COVID severity & ABO Blood group type and the occurrence of the most common blood group type amongst positive patience.

Keywords : coronavirus, ABO blood group, age, gender
Conference Title : ICMVM 2023 : International Conference on Molecular Virology and Microbiology
Conference Location : Rome, Italy
Conference Dates : February 20-21, 2023