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Correlation Between the Rh/ABO system and infection due to sars cov2 in morocco

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The association between COVID-19, ABO blood group system and Rhesus needs to be explored in order to suggest a model of the mechanism linked to SARS CoV2 infection. A retrospective case-control association study was performed on the different regions of Morocco and carried out on a population of size n = 5039 including a total of 4268 COVID 19 patients and 771 control groups. The differences in the Rh/ABO blood group distribution between COVID-19 patients and the control group were analyzed. The relationship between ABO blood type, sexes, Rhesus and COVID-19 characteristics was analyzed. The analyzes of association between the blood group and the infection related to SARS CoV2 showed a statistically significant difference in the individuals of groups B, O, AB) respectively, but not blood group A. In addition, patients with the Rh+ phenotype are less vulnerable to infection therefore the latter are considered to have a protective effect, however the Rh- categories are more vulnerable to infection so they are risk factors. Blood type was related to some clinical characteristics of patients with COVID-19. The presence of the A and B antigens increase the risk of infection with SARS COV2. While the presence of anti A and anti B antibodies makes group O protector against infection. Patients with the Rh+ phenotype are less vulnerable to infection than Rh-therefore these are considered to have a protective effect which is the presence of the D antigen in red blood cells.

Keywords: ABO Blood Group System, Rhesus, COVID-19, Association Analysis, Antibodies.

Biography

Alaoui's career uniquely blends rigorous immunological research with public health awareness, particularly in allergy prevention and medicinal plant exploration. Her work spans molecular mechanisms to potential therapeutic applications, significantly impacting both regional and global biomedical science. Assistant Professor of Immunology, Laboratory of Biotechnology & Development of Natural Resources at the Polydisciplinary Faculty of Beni Mellal, Sultan Moulay Slimane University, Morocco

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