

RESUMO - HUMANA

HUMORAL IMMUNITY MONITORING IN PATIENTS INFECTED WITH SARS-COV-2, IN SALVADOR, BAHIA, BRAZIL.

Alice Maria Abreu Gusmão Soares (aliceabreuu@gmail.com)

Silvia Ines Sardi (sissardi@yahoo.com.br)

Rafael Ribeiro Mota Souza (motasouza93@gmail.com)

Thayra Gomes Dos Santos (thayra.gomes@hotmail.com)

Monica Pereira Carnauba (carnaubabio@gmail.com)

Geane Dos Santos Peixinho (GEANEPEIXE@GMAIL.COM)

Rejane Hughes Carvalho (hughescv@gmail.com)

Gubio Soares Campos (gubiosoares@gmail.com)

Introduction: Screening has been a major weapon for control of virus propagation during the spread of the COVID-19 pandemic. Methods for immune diagnostics has been an important epidemiologic tool to monitor subjects that have been in contact with the SARS-CoV-2 virus. However, it has been observed that the sensitivity of the serological testes decreases depending on the time infection. Studies have shown that the levels of anti-SARS-CoV-2 antibodies considerably diminishes within months, with an intense drop five to seven months after infection. Nonetheless, besides the distinct immunological characteristics of each individual, it is believed that other aspects, such as viral load exposure, may play a role in the type and duration of the immune response. We have, therefore, investigated the levels of IgM and IgG antibodies

in patients previously diagnosed as positive for SARS-CoV-2 by RT-qPCR correlating it with gender, age and profession. Methods: Subjects enrolled in this study were diagnosed with SARS-CoV-2 by RT-qPCR between April and September 2020 (n=148). Subjects' serum was collected from 20 to 168 days after RT-qPCR test result. Data from the subject's, such as gender, age and symptoms, were obtained via a survey. All subjects signed an informed consent form. Antibody levels were detected using Euroimmun Anti-SARS-CoV-2 ELISA IgG and Euroimmun Anti-SARS-CoV-2 NCP ELISA IgM. Results: From the 148 samples, 88,5% were positive for either IgM or IgG. From those, 74,3% were positive for IgG and 14,2% for IgM. 9,4% reported to be asymptomatic, while the most common symptom reported by the remaining subjects were fever, headache, olfactory and gustatory loss or dysfunction, diarrhea, fatigue and body ache. From the 148 subjects only 2% were admitted to ICU. Age ranged from 03 to 82 years of age. 18,9% were male and 81,1% female. The majority of the subjects were healthcare professionals. Conclusion: Our findings report that for 11,5% of the subjects that were infected with SARS-CoV-2, antibody levels were not reagent or were inconclusive. In this study, patients were positive for IgM even after 134 days of the RT-qPCR test and were positive for IgG 25 days after the RT-qPCR test. It is therefore important a long term follow up to monitor the presence of antibodies and their levels to establish immune response to SARS-CoV-2. Financial Support: The present study was founded by FAPESB/CORONAVIRUS 2020 and by the Labor Justice Courte of the 5th region.