

ANTINUCLEAR AUTOANTIBODIES AND THEIR IMMUNOFLUORESCENT IMAGE IN PERSONS POSITIVE FOR ANTIBODIES AGAINST SARS-COV-2

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Background: The humoral immune response in the context of Sars-Cov-2 viral infection still remains controversial and unclear. However, in many other infections, along with antibodies directed against the specific infectious agents, antinuclear antibodies (ANA) have also been found. The explanation of this phenomenon has supposed to be infection induced cellular death followed by presentation of nuclear autoantigens.

Aim: The aim of the present study was to investigate the presence of ANA and the characteristics of fluorescent images in persons who demonstrate antibodies against Sars-Cov-2.

Materials and Methods: Twenty persons between 29 and 50 years old, found to be positive by rapid immunochromatographic tests for IgG and / or IgM antibodies directed against Sars-Cov-2 were included in the study. Some of them were followed and examined by ELISA tests for IgG, IgM and IgA. To detect ANA, indirect immunofluorescence on HEP-2 cells was used and the images were determined according to the nomenclature of International consensus of ANA patterns.

Results: Among the sera tested, 7 showed ANA in a titer above or equal to 1:160. All of these samples demonstrated AC-4 type of staining. Mitotic fluorescence was found in 10 sera, and all of them showed AC-24 type of staining according ICAP nomenclature. 5 sera demonstrated both "classic ANA" and mitotic fluorescence.

Conclusion A significant proportion of people who have been positive for antibodies against Sars-Cov-2, demonstrated the presence of ANA as well. Nothing unique or undescribed in other infections was not observed in the titers and images of ANA.