REFERENCES:

- [1] WHO, COVID-19 clinical management, Living Guidance, 25 Jan 2021
- Disclosure of Interests:** CODRINA ANCUTA Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Consultant of: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Cristina Pomirleanu Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Georgiana Strugariu Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Luiza Petrariu Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Eugen Ancuta: None declared, Codruta Bran Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Rodica Chiriac Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Claudia Mihailov Speakers bureau: Abbvie, Pfizer, Lilly, Novartis, Sandoz, Consultant of: Abbvie, Pfizer, Lilly, Novartis, Sandoz
- DOI:** 10.1136/annrheumdis-2021-eular.3467

AB0696

ANTI-PHOSPHOLIPID AUTOANTIBODIES IN COVID-19 PATIENTS

M. Jordhani¹, D. Ruci¹, V. Ruci². ¹UHC Mother Teresa, Tirana, Albania, Internal Medicine, Tirana, Albania; ²University Trauma Hospital Tirana, Orthopaedics, Tirana, Albania

Background: Because of the inflammation boosting cytokines, Coronavirus disease 2019 (COVID-19) has demonstrated thrombotic consequences that have increased its morbidity and mortality. There is evidence that mechanisms that contribute in thrombosis in COVID-19 patients are similar to those in anti-phospholipid syndrome (aPS). In fact, there is a possibility that anti-phospholipid autoantibodies (aPLs) might impulse thrombosis in patients with COVID-19, as literature suggests².

Objectives: The aim of our study was to evaluate the anti-phospholipid autoantibody titre in patients with COVID-19 during and after the infection.

Methods: This is an observational study which included 71 patients with a recent COVID-19 up to 4 weeks after. Every patient was completed with aPL titre about IgG and IgM anti-cardiolipine (ACA) and lupus anticoagulant (LAC) autoantibodies. According to titre results, the patients were divided into groups in order to better show the immunologic results.

Results: After gathering and analysing the data, it was estimated that 21 patients (29.6%) were positive for at least one type of aPL antibody: 12 patients were found positive for lupus anticoagulant autoantibodies (57.1%), 6 patients were double positive for LAC and ACA (28.6%), and 3 patients were positive for anti-cardiolipin antibodies (14.3%). Seven patients were IgM positive for any aPL (33.3%), 6 patients were found to have positive IgM and IgG (28.6%) and 8 patients had only IgG antibodies (38.1%).

Conclusion: From this study it was observed that a significant proportion of patients with recent COVID-19 infection had positive anti-phospholipid antibodies, compared to the general population prevalence. This suggests that the impact of aPLs in COVID-19 might be of great importance. It should be carefully evaluated in order to better understand the mechanisms of thrombotic complications.

REFERENCES:

- [1] Wise Jacqui. Covid-19 and thrombosis: what do we know about the risks and treatment? *BMJ* 2020; 369:m2058
- [2] Zuo, Yu, et al. "Prothrombotic autoantibodies in serum from patients hospitalized with COVID-19." *Science translational medicine* 12.570 (2020).

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3521

AB0697

ANTI-SARS-COV-2 ANTIBODIES AND AUTOANTIBODIES IN COVID-19 PATIENTS SURVIVED AFTER ICU ADMISSION, 6 MONTHS LATER

K. Bitzogli¹, E. Magira², L. Chatzis¹, E. Jahaj², H. Alexopoulos¹, M. Dalakas¹, A. Kotanidou², A. Tzioufas¹, P. Vlachoyiannopoulos¹. ¹School of Medicine, National and Kapodistrian University of Athens, Pathophysiology, Athens, Greece; ²School of Medicine, National and Kapodistrian University of Athens, 1st Department of Intensive Care Medicine, Athens, Greece

Background: We¹ and others² have previously shown that ICU admitted patients with COVID-19 developed high titers of anti-SARS-CoV-2 antibodies, but also autoantibodies, some of which are pathogenic. We re-evaluated 8 patients of those survived after admission to the ICU of Evangelismos Hospital of Athens -1st Department of Internal Medicine, Medical School, NKUA³ 6 months later. We did not know whether these autoantibodies still exist, are associated with COVID-19 or with ARDS as described after septic shock⁴.

Objectives: To investigate the presence and titers of anti-SARS-CoV-2 antibodies and autoantibodies in patients survived after COVID-19 ICU stay, in the ICU and 6 months later.

Methods: Case series to evaluate titers of anti-SARS-CoV-2 antibodies, specificities of autoantibodies as well as clinical features in ICU admitted COVID-19 patients, initially and 6 months after their discharge. Evaluation of current clinical

status included evaluation of lung, heart, kidney, central and peripheral nervous system and mental status using standardized methods. Methods for detection of anti-SARS-CoV-2 antibodies and autoantibodies were described in our previous report¹.

Results: We had initially evaluated¹ 29 ICU admitted COVID-19 patients' files and sera, of which 4 had been already died during serum evaluation. Six more patients died thereafter. Out of 19 having been discharged, 8 were willing to be re-evaluated. On second evaluation 6 months later, serum anti-SARS-CoV-2 antibodies were highly positive, although at lower titers compared to the titers at disease onset (median [range]) 8.705 (range: 7.95-9.56) vs 6.640 (range: 6.29-6.76), $p=0.0002$, Mann-Whitney test. Initially 3 out of 8 patients expressed anti-nuclear antibodies (ANA) at titers 1/160, 1/320 and 1/320 with a fine speckled pattern with the second patient also expressing at a titer of 1/160, antimitochondrial (AMA) antibodies. Six months later the same patients and not anyone else expressed ANA of the same pattern at titers 1/640, 1/160 and 1/160 respectively. Two patients with 1/20 p-ANCA and 1/640 c-ANCA initially, lost their respective autoantibodies after 6 months. One patient initially negative for IgM anti- β 2GPI became positive at low titer and an initially positive became negative. One patient initially positive for anti-Ro60 antibody continued to be positive 6 months later. One patient initially negative developed anti-Tg antibodies and 3 patients initially positive for anti-TPO antibodies remained positive 6 months later.

Conclusion: Patients with COVID-19 survived after ICU admission still retain high titers of anti-SARS-CoV-2 antibodies but significantly lower than at disease onset, but they tend to lose autoantibodies with pathogenic potential.

REFERENCES:

- [1] Vlachoyiannopoulos P et al, *Ann Rheum Dis* 2020,
- [2] Wang EY et al, medRxiv preprint doi: <https://doi.org/10.1101/2020.12.10.20247205>
- [3] National and Kapodistrian University of Athens, Athens, Greece
- [4] Burbelo et al. *Journal of Translational Medicine* 2010

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3554

AB0698

CORONAVIRUS 19 DISEASE VACCINE: PERCEPTIONS AND INTENTIONS OF TUNISIAN PATIENTS WITH RHEUMATOID ARTHRITIS

K. Ben Abdelghani¹, H. Boussaa¹, S. Miladi¹, M. Sellami¹, L. Souabni¹, K. Ouenniche¹, S. Kassab¹, S. Chekili¹, A. Fazaa¹, A. Laatar¹. ¹Mongi Slim University Hospital, Rheumatology, La Marsa, Tunisia

Background: Coronavirus disease 2019 (covid-19) has now spread to millions of persons worldwide to become a global pandemic. Covid-19 is asymptomatic for some individuals and for others it can cause symptoms ranging from flu-like to acute respiratory distress syndrome, pneumonia and death. Several vaccine candidates are now available, and patients with chronic inflammatory disease such as rheumatoid arthritis (RA) are encouraged to get vaccinated.

Objectives: The aim of this study was to determine perceptions of RA patients about the covid-19 vaccine.

Methods: We conducted a cross-sectional study including Tunisian patients with RA (ACR/EULAR 2010). Demographic and disease parameters were collected: age, gender, educational status, disease duration, erythrocyte sedimentation rate (ESR), disease activity score (DAS28), and treatments being used. All patients responded to a questionnaire on their perceptions and concerns about the covid-19 vaccine, and whether they intended to get vaccinated or not. A p value inferior to 0.05 was considered significant.

Results: We included 54 patients (45 women and nine men) with a mean age of 55 ± 11 years old [23-69]. Thirty-one percent of patients were illiterate. The mean disease duration was 9.9 ± 5.9 years [0-20]. The mean DAS28 ESR was 4.68 ± 1.35 [1.50-7.16].

NSAIDs were used in 13% of patients, corticosteroids in 63% of patients at a mean daily dose of 8mg [2.5-20] of prednisone equivalent, methotrexate in 63% of patients, sulphasalazine in 13% of patients, leflunomide in 3.7%, and biologics in 22.2% of patients.

None of these patients had contracted the covid-19. Seventeen percent of patients had been in close contact with someone positive for the disease. All the patients reported that they respected the preventive measures. Fifteen percent of patients had stopped their treatment because they were afraid of the covid-19: Methotrexate ($n=4$), sulphasalazine ($n=1$), tocilizumab ($n=2$), and rituximab ($n=1$).

More than half of patients (67.7%) reported that they didn't want to get vaccinated against covid-19. The reasons given by these patients were: presumed adverse events (100%), religious beliefs (86.7%), presumed inefficiency (83.3%), no recommendation from their doctor (80%), fear that the vaccine would interact with their treatment (76.7%), lack of trust in the pharmaceutical laboratories (76.7%), fear from vaccines in general (53.3%), fear that the vaccine would make RA worse (50%), and presumed overprice of the vaccine (30%).