

POS1238

ANTIPHOSPHOLIPID ANTIBODIES AND COVID-19: TREND OVER TIME

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Background: Since the beginning of the SARS-CoV-2 outbreak, antiphospholipid antibodies (aPL), a known thrombotic risk factor, have been studied in COVID-19 patients, in whom thromboembolic events have been associated with poor prognosis. To date, the pathogenetic role of aPL and the trend over time is still unknown.

Objectives: Aim of the study was to investigate whether aPL positivity was correlated with thrombosis in COVID-19 patients and whether it was a transient or persistent.

Methods: We included all consecutive COVID-19 patients hospitalized at Policlinico Umberto I, Sapienza University of Rome from April 1, 2020 to June 7, 2020. In these patients, serum levels of anti-cardiolipin (aCL) IgM, IgG, IgA, anti-β2glycoprotein I (aβ2GPI) IgM, IgG were measured by enzyme-linked immunosorbent assay (ELISA) and Lupus Anticoagulant (LA) was detected with coagulatory tests in patients not in treatment with anticoagulant drugs.

Results: Five out of 73 (6.8%) patients resulted positive for aCL IgM, 3 of them also tested positive for aβ2GPI IgM. aCL IgA were tested positive in 14 out of 46 patients (30.4%). Overall 18 patients resulted positive for at least one test. Seven (9.6%) patients developed thrombotic events during hospitalization, 3 of them resulting positive for aPL (Table 1. below).

We observed that patients showing double positivity for aCL IgM and aβ2GPI IgM had a likelihood positive ratio of 6.3 for thrombotic events ($p=0.012$) and a likelihood positive ratio of 4.9 for increased D-dimer levels ($p=0.027$). aCL IgA, the most prevalent aPL in this cohort, was not associated with thrombosis. Of the 18 aPL positive patients, 5 died, 3 were lost to follow-up, and 10 were tested on a second occasion at least 12 weeks, two patients confirmed positivity without clinical signs suggestive of APS.

Conclusion: These results suggest that double positivity for aCL and aβ2GPI IgM increases the risk of thrombosis in COVID-19 patients, unlike aCL IgA. APL positivity may be persistent and it is advisable to monitor it over time.

Disclosure of Interests: None declared

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POS1239

POSITIVE IMPACT OF THE FIRST LOCKDOWN IN PATIENTS WITH CHRONIC INFLAMMATORY RHEUMATISM

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Background: Since the beginning of 2020, the COVID-19 pandemic has caused a considerable amount of fear, worry and concern in the general population and among certain groups such as the elderly, healthcare providers and people with pre-existing conditions in particular. Our patients suffering from chronic inflammatory rheumatism (CIR), a group of autoimmune pathologies treated by immunosuppressant medication, are particularly concerned. Actions taken – particularly quarantine and its effects on the normal activities, habits or livelihoods of many people – also have a significant impact. There is little information on the impact of the lockdown in patients with CIR with data measured prospectively, in a standardized way, before and during the first lockdown period.

Objectives: The objective of this ancillary study was to evaluate the psychological impact of the first lockdown period (anxiety, depression, sleep disorders, catastrophizing...) as well as the evolution of disease activity in patients suffering from CIR.

Methods: At two French university hospitals, adult patients with rheumatoid arthritis (RA) according to the ACR-EULAR 2010 criteria, spondyloarthritis (SpA) fulfilling the ASAS 2009 criteria and psoriatic arthritis (PsA) according to the Caspar 2006 criteria were consecutively included in the Catastrophism in Chronic Inflammatory Rheumatism (CRIC) study from September 2019. Sociodemographic data, information on the disease and its treatments were collected as well as questionnaires on disease activity (DAS28, CDAI, BASDAI), function (HAQ), quality of life (SF12, EQ5D), anxiety and depression (HADS, GAD7), insomnia (ISI) and catastrophizing scores (PCS). These data were collected prospectively at baseline, 3, 6 and 12 months.

In this ancillary study, data from patients with an assessment before and during lockdown were analyzed. Statistical analyses were descriptive with a paired Student's T-test.

Results: In all, 140 patients (49 RA, 69 SpA and 22 PsA) were evaluated before and during lockdown. The median age was 53.5 [44-63] years and 60.7% were women; 74 patients (53.2%) were professionally active and 102

Table 1. Clinical and demographic features of the 7 Covid-19 patients that presented thrombotic events

Features	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7
Age - yr	67	78	83	43	70	74	95
Sex	female	female	female	male	male	female	male
Medical History	Malignancy, Hypertension	Stroke	Chronic obstructive pulmonary disease	No medical history	Chronic obstructive pulmonary disease, Hypertension	Malignancy,	Hypertension
Initial findings							
Signs and symptoms	Dyspnea	Dyspnea	Dyspnea	Fever, ageusia/ anosmia, chest pain	Fever, cough	Dyspnea	Dyspnea
HRCT chest: Bilateral ground glass opacity	yes	yes	yes	yes	yes	yes	yes
Baseline laboratory values							
Lymphocyte count, cells x 10 ⁹ /L	220	210	2330	1580	1680	600	1390
Lactate	223	321	199	227	226	349	199
dehydrogenase, U/L							
Ferritin mcg/L	614	317	213	387	462	2455	197
D-dimer mcg/L	730	1213	2912	282	688	1298	1097
PaO ₂ :FIO ₂ , mm Hg	132	120	442	534	348	493	314
Anticoagulant therapy at the time of the thrombotic event	Therapeutic dosage	Prophylactic dosage	Prophylactic dosage	Not administered	Therapeutic dosage	Therapeutic dosage	Therapeutic dosage
Thrombotic events	Stroke	Pulmonary embolism	Peripheral venous thrombosis	Myocardial infarction	Pulmonary embolism	Myocardial infarction, peripheral arterial thrombosis, peripheral venous thrombosis	Peripheral venous thrombosis
Antiphospholipid antibodies	negative	Anti-cardiolipin IgM low title, anti-β2glycoprotein I IgM low title	negative	negative	negative	Anti-cardiolipin IgM low title, anti-β2glycoprotein I IgM low title	Anti-cardiolipin IgA low title
Outcome	Exitus NP	Exitus NP	Suicide NP	Discharged NP	Discharged NP	Discharged Negative	Exitus NP
Antiphospholipid antibodies tested after at least 12 weeks							

(72.9%) were living as couples. The majority of patients (92.9%) had a disease lasting more than 2 years. Concerning treatments, 63 (45%) were treated by bDMARD monotherapy, 40 (28.5%) by bDMARD+ csDMARD, 17 (12.1%) by csDMARD monotherapy and 2 patients by tsDMARD; 90.7% were not taking any corticosteroids and 8.6% were taking ≤ 5 mg/d; 30% were on NSAIDs.

When comparing before and during lockdown, pain, tender joint count, swollen joint count, disease activity (CDAI, BASDAI) and function (HAQ, SF12 physical component) were similar. However, there was a significant improvement in psychological status, anxiety (HADS, GAD7), the mental component of SF12, catastrophizing and overall quality of life (EQ5D) (see Table 1 below).

Conclusion: There are very few prospective, standardized data on the impact of lockdown in patients with CIR with an assessment before and during the first lockdown period. In patients with CIR, the first lockdown period had no impact on the activity of the disease and was well experienced psychologically with less anxiety and an improvement in quality of life.

Table 1.

Outcome (N)	Before lockdown Mean (SD)	During lockdown Mean (SD)	Mean change (SD)	P
140 CIR: 49 RA, 69 SpA, 22 PsA				
Pain VAS (138)	39.4 (25.3)	39.4 (25.0)	-0.28 (27.1)	NS
TJC (57)	4.0 (6.8)	4.7 (4.4)	0.7 (5.9)	NS
SJC (56)	1.0 (2.6)	1.6 (1.7)	0.5 (2.4)	NS
CDAI (36)	11.7 (1.4)	12.3 (7.5)	1.2 (8.7)	NS
BASDAI (84)	4.7 (1.9)	4.9 (2.0)	0.14 (1.4)	NS
HAQ (135)	0.72 (0.57)	0.72 (0.53)	0.03 (0.33)	NS
SF12 mental (136)	32.7 (8.7)	36.2 (8.4)	3.46 (8.01)	<0.0001
GAD-7 (anxiety) (135)	7.7 (5.5)	5.0 (5.3)	-1.73 (0.40)	<0.0001
HADS anxiety (137)	8.5 (3.9)	7.8 (3.9)	-0.64 (2.91)	0.0113
EQ5D (139)	0.55 (0.31)	0.61 (0.29)	0.06 (0.24)	0.0078
PCS (catastrophizing) (137)	18.9 (13.3)	15.9 (11.1)	-3.10 (9.60)	0.0003

Disclosure of Interests: None declared

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HYDROXYCHLOROQUINE CARDIOTOXICITY: A CASE-CONTROL STUDY COMPARING PATIENTS WITH COVID19 AND PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Antimalarials have been associated with QT prolongation in COVID19 patients but are generally safe in patients with rheumatologic disease.

Objectives: Aim of the study was to compare the prevalence of QTc prolongation between COVID19 and Systemic Lupus Erythematosus (SLE) patients treated with hydroxychloroquine (HCQ).

Methods: We included consecutive patients with SARS-CoV-2 infection confirmed by nasopharyngeal swab and patients taking HCQ for SLE. A prolonged QTc was defined as an increase in QTc intervals >60 ms (compared with baseline) or as a QTc of ≥ 500 ms.

Results: We enrolled 58 COVID19 patients (median age 70.5 years, IQR 25). HCQ, without or with azithromycin, was given to 26 (44.8%) and 15 patients (25.9%), respectively; 17 (29.3%) had not received either drug. The median baseline QTc was 432 (IQR 36) and prolonged QTc was observed in 15 (26%) patients (12 QTc ≥ 500 ms and 3 patients Δ QTc >60 ms). We didn't find significant differences in QTc prolongation among the three treatment groups. Baseline QTc (OR 111.5) and D-dimer (OR 78.3) were independently associated to QTc prolongation.

Compared to the 50 SLE patients (median age of 38.5 years, IQR 22), chronically treated with HCQ, patients with COVID19 showed significantly longer QTc ($p < 0.001$) (Table 1).

Conclusion: This is the first study demonstrating that, differently from COVID19 patients, patients with SLE are not susceptible to HCQ-induced long QT syndrome and arrhythmia. The combined arrhythmogenic effect of SARS-CoV-2 infection and HCQ could account for the excess of QTc prolongation and fatal arrhythmias described in patients with COVID19.

Table 1. Difference in clinical and demographic features between Systemic Lupus Erythematosus and COVID19 patients.

Demographic Features	SLE patients	Covid-19 patients	p-Value
N°	50	58	
Female	43	23	< 0.001
Age (years)	45 (17)	70.5 (25)	< 0.001
Comorbidities N %			
Hypertension	15 (30)	24 (48)	0.2
Cardiovascular diseases	8 (16)	13 (22.4)	0.4
COPD	1 (2)	9 (15.5)	0.016
Thyroid disease	8 (16)	8 (13.8)	0.75
Chronic kidney disease	4 (8)	5 (8.6)	0.91
Population characteristics Median (IQR)			
HCQ (mg/die)	400 (125)	400	< 0.001
HCQ Time (days)	3255 (5790)	7	< 0.001
QTc (ms)	432 (36.25)	395 (80)	< 0.001
SLEDAI-2K	0 (4)	-	-
SDI	0	-	-

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POS1241

THE IMPACT OF THE COVID-19 PANDEMIC ON PHYSICAL FUNCTIONING AND MENTAL WELLBEING IN 824 PATIENTS WITH RHEUMATIC DISEASE OVER 8 MONTHS: PHYSICAL FUNCTIONING DECLINES

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Background: Worldwide the detrimental consequences of the COVID-19 pandemic on physical and psychological health have been recognised. Social distancing and isolation measures have negatively impacted physical functioning (PF) and mental health (MH), and are known to have reduced physical activity (PA) generally within the population. A significant proportion of patients with autoimmune rheumatic disease (ARD) are considered 'clinically extremely vulnerable' (CEV), at high risk from COVID19 and been advised to follow stricter social distancing precautions than the general population. Evidence in ARD patients highlights the importance of PA in maintaining physical and psychological well-being. Prior to the pandemic limitations in both PF and MH in patients with ARD were recognised and early in the pandemic MH was noted to be impacted by distancing measures in this population.

Objectives: This is an interim report of a research study (clinicaltrials.gov NCT04542031) exploring the impact of the COVID19 pandemic on the physical and psychological wellbeing of patients with rheumatic disease, to inform guidelines and target service provision as the pandemic continues.

Methods: We distributed two web-based surveys, eight months apart during the first (April-2020) and second wave (December-2020) of the pandemic. Surveys were communicated via a linked mobile-phone SMS message, to all rheumatology patients with a validated mobile number under follow-up at the Royal Wolverhampton Trust. We assessed patients using the Short Form-12 version 2 made up of mental (MCS) and physical component scores (PCS). For each survey, data were collected 4-weeks following distribution; comparative analysis was conducted using SPSS version-27.

Results: Initial surveys were sent to 7911 active follow up patients; 1694/7911 (21.4%) responded and consented for further follow up, of which 1636 were linked to a validated mobile number. 899/1636 (55.0%) responded to the second survey and 824/899 (91.7%) responses were linked across both surveys. These 824 patients were predominately female (69.5%), aged 61 years and 76.3% had an ARD; 388/824 patients were CEV, 436 were in the comparator group. For the CEV group, scores remained significantly lower than the comparator for PCS (survey 1: 36.40 vs 39.61 [$P < 0.001$], survey 2: 36.11 vs 38.66 [$P < 0.001$]) and MCS (41.61 vs 43.44 [$P < 0.001$]; 41.19 vs 43.60 [$P < 0.001$]); there was no deterioration in CEV scores. In the comparator group, while MCS did not differ in patients with ARD, PCS significantly decreased (1.39; 95% CI: 0.69, 2.08; $P < 0.001$); PCS in the non-inflammatory group did not significantly change (-0.23, $P = 0.65$).

Conclusion: These preliminary data suggest that while the physical and mental health of CEV patients is significantly lower in this cohort, surprisingly, neither aspects of health have been worsened by the impacts of the pandemic over an 8-month period. However, the physical functioning of patients with ARD significantly decreased in this time, which may reflect the reduction in PA faced by society, and reduced contact with secondary care services. These data suggest services need to adapt to provide additional support to patients with ARD to maintain physical functioning during the pandemic. Further work exploring the