

Symptomatic COVID-19 was more frequent in patients with a history of DAH, RPGN and hlgG. hlgG during the follow-up was significantly associated with COVID-19 in multivariable analysis ($p=0.01$, $OR=20.6$ %95 CI (2-210)). Comparison of patients who died of COVID-19 and survived showed that female sex, PNS involvement and hlgG during the clinical course and hospital admission were risk factors for increased mortality (Table 1). Age, smoking, treatments, history of flares or serious infections, remission status and chronic renal insufficiency did not differ between groups.

Conclusion: The frequency and mortality from COVID-19 is found to be high in our AAV cohort compared to previous reports (1). Patients with serious lung or renal involvement are prone to symptomatic COVID-19. Previously reported severe outcomes on RTX therapy might be related to consequent hlgG. High dose IVIG treatment may not be sufficient in improving survival in AAV patients with severe COVID-19 and hlgG.

REFERENCES:

- [1] Severity of COVID-19 and survival in patients with rheumatic and inflammatory diseases: data from the French RMD COVID-19 cohort of 694 patients. 2020:annrheumdis-2020-218310.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3880

POS1258 MISSING THE WINDOW OF OPPORTUNITY: EARLY ARTHRITIS CLINICS IN TIMES OF COVID-19

B. D'onofrio^{1,2}, L. De Stefano^{1,2}, B. L. Palermo^{1,2}, B. Xoxi¹, A. Manzo^{1,2}, C. Montecucco^{1,2}, S. Bugatti^{1,2}. ¹IRCCS Policlinico San Matteo Foundation, Division of Rheumatology, Pavia, Italy; ²University of Pavia, Department of Internal Medicine and Therapeutics, Pavia, Italy

Background: The outcomes of patients with chronic inflammatory arthritis (IA), such as rheumatoid arthritis (RA), have dramatically improved over the past 20 years. Earlier identification of IA and prompt treatment institution have been key advancements, promoted by the constitution of Early Arthritis Clinics (EAC) and the development of more sensitive classification criteria for RA. The outbreak of new COroNaVIrus Disease 2019 (COVID-19) has quickly become a global health emergency and has forced a rearrangement in the management of other non-COVID-19 diseases. The impact of the lock-down of the healthcare systems on chronic inflammatory diseases such as RA is expected to be significant but is at present unknown.

Objectives: To assess the effects of the lock-down imposed by the COVID-19 pandemic on the referral and clinical presentation of patients with new-onset RA. **Methods:** Data were retrieved from the Pavia EAC inception cohort, established in 2005 for the early identification of patients with new-onset IA. Referral criteria to the EAC include: ≥ 3 swollen joints (SJ) and/or < 3 SJ and positive squeeze test and/or < 3 SJ and morning stiffness > 30 min. Demographic and clinical characteristics of the patients are assessed at baseline and regularly over follow-up. At 31 Dec 2020, the Pavia EAC collects information on 2.508 patients. For this study, baseline characteristics of the patients referred in the semester following the COVID-19 lock-down (Jul-Dec 2020) were compared with: (i) patients referred in the semester immediately preceding the lock-down (Jul-Dec 2019); (ii) patients referred in the semester following the publication of the 2010 RA classification criteria (Jan-Jun 2011); (iii) patients referred in the semester preceding the publication of the 2010 criteria (Jul-Dec 2009).

Results: In the semester following the lock-down imposed by the COVID-19 pandemic, there was a decrease in the referral of patients with new-onset suspected IA compared with previous periods ($n=71$ vs $n=91$ in the semester before the lock-down, $n=96$ in the first semester of 2011, $n=101$ in the second semester of 2009). Furthermore, fewer of the referred patients fulfilled RA criteria at presentation (36.6% vs 44.3%, 46.5% and 42.9% in the other semesters). Among patients with RA, more were autoantibody-positive (72% vs 50%, 49.1% and 52.2%). There was a trend for increased diagnostic delay in the overall cohort of RA after the COVID-19 lock-down (Figure 1A). The delay was particularly longer in autoantibody-positive patients, returning to the values seen before the introduction of the 2010 RA criteria (Figure 1B). In contrast, the few autoantibody-negative patients were referred earlier (Figure 1C). Disease activity at presentation was significantly higher in RA patients presenting after the lock-down compared with the progressive trend for reduction observed over the previous years, irrespective of the autoantibody status (Figure 1D-F). Such increase was determined by an inversion of the trend towards lower levels of objective parameters of inflammation, such as the swollen joint count (Figure 1G-I) and acute phase reactants, and a further increase in the secular trend towards worsening of patient-derived measures, such as the tender joint count and patient global assessment (Figure 1J-L).

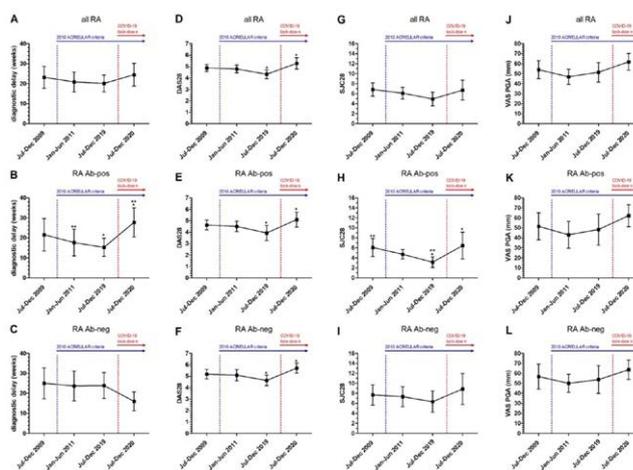


Figure 1. Effects of COVID-19 lock-down on new-onset RA at presentation.

Conclusion: The COVID-19 pandemic is posing unprecedented challenges in the management of patients suffering from chronic diseases. RA has returned to be diagnosed outside the window of opportunity, with a significantly higher inflammatory burden at presentation. The many benefits of early diagnosis, which have dramatically changed the outcomes of autoantibody-positive RA, are at risk of vanishing in short times. Equally important, autoantibody-negative RA is at risk of further under-diagnosis and under-treatment.

Disclosure of Interests: Bernardo D'onofrio: None declared, Ludovico De Stefano: None declared, Bianca Lucia Palermo: None declared, Blerina Xoxi: None declared, Antonio Manzo: None declared, Carlomaurizio Montecucco Speakers bureau: BMS, Lilly, Sanofi, Pfizer, Galapagos, Roche, Novartis, Serena Bugatti Speakers bureau: BMS, Lilly, Sanofi, Pfizer, Galapagos

DOI: 10.1136/annrheumdis-2021-eular.3893

POS1259 FAVOURABLE SHORT-TERM COURSE OF COVID-19 IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER USING BIOLOGIC AGENTS

N. Aliyeva¹, B. Ç. Yalçın Dulundu¹, S. Amikishiyev¹, S. Aghamuradov¹, M. Bektaş¹, B. Ince¹, N. Koca¹, Y. Yalçınkaya¹, B. Artım-Esen¹, M. İnanc¹, A. Gül¹. ¹Istanbul Medical Faculty, Rheumatology, Istanbul, Turkey

Background: COVID-19 runs a variable course resulting in acute respiratory distress syndrome and death in a subset of patients. The entry of SARS-CoV-2 into the cell stimulates innate immunity including NLRP3 inflammasome and lead to development of adaptive immunity later. Hyperinflammatory response with the release of proinflammatory cytokines including IL-1 β and IL-6 results in cytokine storm in some patients with a worse outcome. Colchicine acts on NLRP3 inflammasome and inhibits and IL-1 mediated inflammatory attacks in gout and familial Mediterranean fever (FMF) patients. Patients with inadequate response to colchicine may benefit from anti-IL-1 biologic agents such as anakinra and canakinumab. Recently, favourable effects of anakinra have been observed in COVID-19 patients with findings of cytokine storm.

Objectives: We aimed to evaluate the impact of COVID-19 among refractory FMF patients followed-up in tertiary referral with the treatment of biologic agents and also document the course of COVID-19 in these patients.

Methods: We searched out database of FMF patients to identify those using biologic agents (anti-IL-1, anti-IL-6 or anti-TNF) for colchicine-refractory FMF. We interviewed the patients using a standard questionnaire by phone call for symptomatic COVID-19 and evaluated those patients who described findings of COVID-19 further by their hospital records or inviting them to the hospital for additional investigations.

Results: We identified 183 patients and contacted 106 of them by phone in May-October 2020. A history of symptomatic COVID-19 was documented in 7 FMF patients who were on a biologic agent. Six were on anti-IL-1 and one was on anti-TNF, and one of the patients was not taking his biologic agents for 1 year. All of 7 patients had a favourable outcome. All but 1 patient followed at home and none of them developed findings of cytokine storm, thromboembolism and secondary bacterial infection. Hospitalized patient did not require intensive care unit (ICU) support or mechanical ventilation, and he was not given additional anti-inflammatory medications.

Conclusion: This series of refractory FMF patients with potentially higher inflammatory characteristics showed COVID-19 did not result in a worse outcome in those patients during the first phase of the pandemic, and none developed findings of cytokine storm. Observations in these patients supports further that biologic agents blocking IL-1 and possibly TNF may contribute to the uneventful course of COVID-19 by preventing the development of hyperinflammatory response. Data collection from a larger group of patients, especially those with amyloidosis, will clarify the protective effects of colchicine and contribution of anti-IL-1 treatments on the favourable disease course during the second phase of the pandemic.

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7
Age (years)	45	48	39	53	32	37	31
MEFV variants	Unknown	M694V	Unknown	M694V/ M694V	M694V/ M694V	M694V/ M694V	M694V/ M694V
Amyloidosis	No	No	No	No	No	No	No
Biologic agents	Anakinra 100mg/ day	Not taken for 1 year	Adalimu- mab	Canakinumab 150mg/ month	Anakinra 100mg/ day	Canakinumab 150mg/ month	Anakinra 100mg/ day
Prednisone (mg/day)	5	No	No	No	No	No	No
Colchicine (mg/day)	2	1,5	1,5	1,5	1,5	2,0	2,0
RT-PCR positivity	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chest CT signs	Yes	Yes	Not done	Not done	Not done	Not done	Not done
Hospitalisation	No	No	No	Yes	No	No	No
Antiviral therapy	Oseteltamivir	Oseteltamivir	No	Favipravir	Favipravir	Favipravir	Favipravir
HCO use	Yes	Yes	Yes	Yes	No	No	No
New FMF attack during COVID-19	No	No	No	No	No	No	No

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3903

POS1260

FACTORS ASSOCIATED WITH SEVERE SARS-COV-2 INFECTION IN PATIENTS WITH INFLAMMATORY RHEUMATIC DISEASES IN MADRID: RESULTS FROM REUMA-COVID SORCOM REGISTRY

A. Boteanu¹, A. García Fernández¹, N. De la Torre², M. Pavia Pascual², O. Sanchez Pernaute³, S. Recuero Diaz³, S. Perez Esteban³, G. Bonilla⁴, L. Nuño⁴, J. J. Sanmartin Martinez⁵, C. Bonilla Gonzalez-Leganá⁶, D. Clemente Garulo⁷, L. Lojo Oliveira⁸, J. M. Rodríguez Herredia⁹, J. Bachiller-Corral¹ on behalf of REUMA-COVID SORCOM. ¹H. U. Ramón y Cajal, Rheumatology, Madrid, Spain; ²H.U. Puerta de Hierro, Rheumatology, Madrid, Spain; ³H.U. Fundación Jiménez Díaz, Rheumatology, Madrid, Spain; ⁴H.U. La Paz, Rheumatology, Madrid, Spain; ⁵H.U. Severo Ochoa, Rheumatology, Madrid, Spain; ⁶H.U. del Tajo, Rheumatology, Madrid, Spain; ⁷H.U. Niño Jesus, Rheumatology, Madrid, Spain; ⁸H.U. Infanta Leonor, Rheumatology, Madrid, Spain; ⁹H.U. Getafe, Rheumatology, Madrid, Spain

Background: Patients with inflammatory rheumatic diseases (IRD) infected with SARS-CoV-2 may be at risk to develop a severe course of COVID-19 due to the immune dysregulation or the influence of immunomodulating drugs on the course of the infection. For a better understanding of SARS-CoV-2 infections in patients with IRD and due to the high incidence of COVID-19 in Madrid from the beginning of this pandemic infection in Spain, the Society of Rheumatology from Madrid (SORCOM) established a registry (REUMA-COVID SORCOM) shortly after the beginning of the pandemic in Spain.

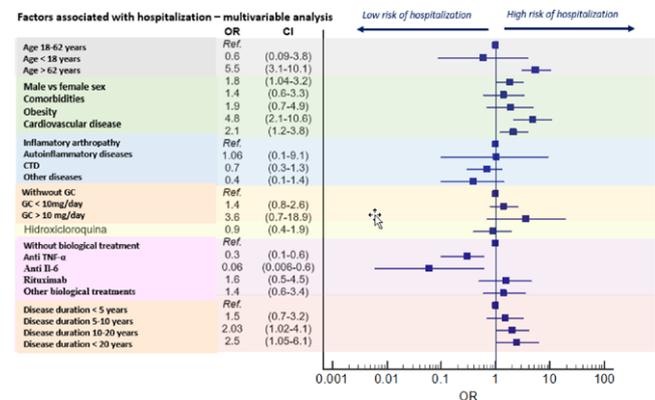
Objectives: To determine factors associated with severity of infection with SARS-CoV-2 in patients with inflammatory rheumatic diseases in Madrid

Methods: The REUMA-COVID SORCOM registry is a multicenter, retrospective, observational cohort study conducted in Madrid, a SORCOM initiative. All rheumatology departments from Madrid were invited to participate. The study includes patients with IRD presenting with a confirmed or highly suspected diagnosis of COVID-19 between March 1, 2020, and November 10, 2020. We consider severe infection death or need of hospitalization. Inclusion criteria was having an IRD and at least 1 of the following 4 criteria: (1) a biologically confirmed COVID-19 diagnosis based on a positive result of a SARS-CoV-2 polymerase chain reaction (PCR) test on a nasopharyngeal swab; (2) Detection of IgM or IgG anti SARS-CoV2 in a symptomatic or asymptomatic patients (3)typical thoracic computed tomography (CT) abnormalities (ground-glass opacities) in epidemic areas; (4) COVID19-typical symptoms in an epidemic zone of COVID-19.

Results: As of November 10, 2020, 417 patients with IRD were included in the REUMA-COVID SORCOM registry. 5 patients were discharged for incomplete data. Of 412 patients (mean age 57 years, 87.4% Caucasian race, 66.3% female) 174 need hospitalization (42.2%) and 33 patients died (18.4% mortality in hospitalized patients). 82.3% had comorbidities. 234 (56.8%) patients were classified as inflammatory arthropathy, 133 (32.3%) had connective tissue diseases (CTD). 41.1% of the patients had a large history of IRD (> 10 years). 10.4% of patients had previously pulmonary involvement. The study includes 143 patients taking Methotrexate, 89 patients taking anti-TNF α therapy and 27 Rituximab. In the univariate analysis, no differences were seen in the severity of COVID-19 infection in patients taking methotrexate. 63% of the all patients taking Rituximab included in the registry need hospitalization and 22% of them died. Hypertension, COPD or cardiovascular disease was associated with hospitalization.

Independent factors associated with COVID-19 hospitalization in the multivariate analysis was: age (>62 years), male sex, IMC >30, previous cardiovascular comorbidities and the IRD disease duration (> 10 years). Independent factors associated with COVID-19 related death was: age (> 62 years), having a CTD diagnose, pulmonary involvement before infection and chronic GC treatment.

Conclusion: Patients with IRD represent a population of particular interest in the pandemic context because the baseline immunological alteration and the treated with immunosuppressants agents they receive, comorbidities and the well-known risk of severe infection. Older age, male sex, cardiovascular comorbidities were factors associated with high risk of hospitalization in IRD patients. CTD diseases, previously pulmonary involvement and chronic GC treatment with more than 10mg/day were associated with high risk of death. Neither anti TNF- α treatment nor Methotrexate were risk factor for hospitalization or death COVID-19 related in IRD patients.



Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3973