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 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 severe COVID-19 and hlgG.

Disclosure of Interests: None declared

REFERENCES:


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

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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 prompter 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 >30min. 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 for autoantibody-negative 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 1-J).
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.

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


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 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-CoV-2 in a symptomatic or asymptomatic patients (3) typical thoracic computed tomography (CT) abnormalities (ground-glass opacities) in epidemic areas; (4) COVID-19–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-TNFα 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 diagnosis, 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-TNFα treatment nor Methotrexate were risk factor for hospitalization or death COVID-19 related in IRD patients.

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