to persistent dyspnea and fever, a new chest CT was performed and revealed similar image findings but some of the irregular nodular condensations showed a reversed halo sign and had a migrating character. Considering this typical image findings, the absence of causative infectious agents (excluded by bronchoalveolar lavage performed after delivery) and the absence of response to antibiotics, we concluded with a diagnosis of OP secondary to RA without performing lung biopsy samples. A treatment with 48mg of methylprednisolone (and 100mg of azathioprine a few weeks later) was initiated. One month later, she showed a spectacular improvement in her clinical condition. A new chest CT highlighted disappearance of the majority of the ground glass areas and of all the condensations previously described. Methylprednisolone was then progressively tapered.

Conclusion

OP is a common pulmonary complication that can develop in RA. However, despite our research, we have not found any other clinical case describing this disorder during pregnancy with RA. Since OP is a non-specific inflammatory response to an aggression of the organism, could we consider that the pregnancy is a state of aggression capable of causing such a response?

In addition, this clinical case illustrates the diagnostic challenge of this pathology during the Covid-19 pandemic.

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AB0652

FERRITIN IS ASSOCIATED WITH THE SEVERITY OF LUNG INVOLVEMENT BUT NOT WITH WORSE PROGNOSIS IN PATIENTS WITH COVID-19: DATA FROM TWO ITALIAN COVID-19 UNITS

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Background: The coronavirus 2019 disease (COVID-19) is characterised by a heterogeneous clinical presentation and a wide range of imaging findings, depending on disease severity and time course. The pathophysiology is complex, involving immune and hematologic systems, epithelial cells and vascular system and to date reliable biomarkers aimed at stratifying patients and predicting worse outcomes have not been identified

Objectives: The aim of this study was to describe clinical, serological and CT imaging features of a cohort of patients with COVID-19 pneumonia and identify possible relationships between the variables and disease outcomes (admission to intensive care unit (ICU) and/or death).

Methods: We evaluated hospitalized patients with proven SARS-CoV-2 infection, clinical signs of COVID-19 and computed tomography (CT) scan-proven pulmonary involvement. Clinical and serological records of patients admitted to two COVID-19 Units in Italy with proven SARS-CoV-2 pulmonary involvement investigated with CT scan, assessed at the time of admission to the hospital, were retrospectively collected.

Results: Sixty-one patients (22 females and 39 males) of median age 65 years were enrolled. Fifty-six patients were discharged while death occurred in 5 patients. None of the lung abnormalities detected by CT was different between discharged and deceased patients. No differences were observed in the features and extent of pulmonary involvement according to age and gender. Logistic regression analysis with age and gender as covariates demonstrated that ferritin levels over the 25th percentile were associated with the involvement of all 5 pulmonary lobes (OR=14.5, 95% CI=2.3-90.9, p=0.004), the presence of septal thickening (OR=8.2, 95% CI=1.6-40.9, p=0.011) and the presence of mediastinal lymph node enlargement (OR=12.0, 95% CI=1.1-127.5, p=0.039) independently of age and gender.

Conclusion: We demonstrated that ferritin levels over the 25th percentile are associated with a more severe pulmonary involvement, independently of age and gender, but not with disease outcomes (admission to ICU/death). The identification of reliable biomarkers in patients with COVID-19 may help guiding clinical decision, tailoring therapeutic approaches and ultimately improving the care and prognosis of patients with this disease.

Disclosure of Interests: None declared.

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AB0653

COURSE OF COVID-19 INFECTION IN A SERIES OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Infection is a remarkable cause of morbidity and mortality in patients with SLE.

Objectives: We aimed to determine the clinical course of COVID-19 infection in our patients with SLE and the factors affecting this course

Methods: SLE patients (2012 SLICC criteria) diagnosed with COVID-19 infection by a positive PCR test and/or typical findings of lung involvement in CT (computed tomography) imaging were included. Data regarding cumulative clinical and laboratory characteristics, histopathology results, autoantibody profiles, immunosuppressives and damage (SLICC damage index/SDI) were retrieved from the existing database and revised. SLE Disease Activity Index (SLEDAI-2K) was determined at the time of infection.

Results: Sixteen SLE patients with COVID-19 infection were identified. Most (87.5%) of these patients were female. Seventy % (n=11) had lupus nephritis. Twenty-five % had thrombotic antiphospholipid syndrome.

PCR was positive in 70% (n=11) of the patients. Pulmonary parenchymal findings compatible with COVID-19 were observed in 56% (n=9) of those patients. Regarding complaints upon admission, 50% (n=8) had fever, 44% (n=7) cough, 44% (n=7) dyspnea, 19% (n=3) myalgia, 12.5% (n=2) headache, 12.5% (n=2) nausea/vomiting, 6% (n=1) diarrhea, and 6 % (n=1) had anosmia. Eight patients were hospitalized. Six of these patients needed oxygen therapy via nasal cannula. None needed a follow-up in the intensive care unit. The mean hospitalization duration was 14 ± 5 (8-25) days.

Regarding disease activity at the time of infection, 9 had inactive disease with a SLEDAI-2K score of 0 whilst in 5 patients SLEDAI-2K score was ≥4. The mean SLEDAI-2K score at the time of infection was 1.7 ± 2.3 (0-6). System/organwise, 1 patient with chronic thrombocytopenia presented with a worsening platelet count accompanied by serologic activity. This patient was a non-adherent to treatment who had stopped taking mycophenolic acid months before COVID19. Three patients 2 of whom had proliferative nephritis experienced nephritic flares. 1 patient who had a history of cutaneous lupus and was in remission presented with oral ulcer, leukopenia and hypocomplementemia during infection. Of 16 patients, 7 had system damage at the time of infection. The mean SDI score of the patients was 1.4±1.8. Comparison of patients with and without damage revealed no significant differences in disease activity, symptoms associated with COVID, in the need for hospitalization, hospitalization duration, and the requirement for oxygen therapy. However, CT findings compatible with COVID19, were more common in patients with damage (87% vs.33%, p=0.04) and their mean CRP levels were higher at diagnosis (65 ± 47 vs.22 ± 48 mg/l; p=0.032).

All patients received similar treatment for COVID-19 except active patients who required high dose steroids (2 with active renal, 1 with thrombocytopenia and 1 with oral ulcer, leukopenia and hypocomplementemia). The patient with thrombocytopenia also received intravenous immunoglobulin and 1 with cutaneous active disease received tocilizumab as she developed macrophage activation syndrome. Six patients (37.5%) had received rituximab (RTX) in the last 6 months before COVID. No significant difference, in terms of hospitalization and need for oxygen therapy due to COVID19 was found between patients who had received RTX vs who had not. No hypogammaglobulinemia was detected in patients who received RTX despite lower levels of IgG (998 ± 184 vs 1481 ± 51 mg/dl, p=0.02)

Conclusion: Although half of the patients in our series of COVID19 infected SLE patients required hospitalization, there were no mortalities. More patients with damage (none pulmonary) displayed CT findings compatible with COVID19 and further follow up will reveal whether they will suffer from fibrotic lung disease. Patients can experience disease flares during COVID. But it is also important to consider that some manifestations such as thrombocytopenia may also be a sign of severe infection. Immunosuppressive agents may not have a negative impact on the course of infection.

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AB0654

TOCILIZUMAB IS PROTECTIVE AGAINST SARS-COV2 INFECTION OR NOT?

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Background: SARS-COV2 (Covid19) pandemic has a scaring burden on hospitals and health care providers all over the world. Unfortunately, after one year of pandemic, millions of persons are infected either mild symptoms or critical ones and unexplained deaths. Till now, No effective treatment or vaccination. Researches showed that Covid 19 associated with elevated interleukin-6. Subsequently, Studies reported that tocilizumab (IL-6 antagonist) may be effective in critical patients even though other were shown that it is not associated with reduction in the mortality.^(1,2) Therefore the question is that patients with rheumatic diseases who are already receiving tocilizumab having a primary

protection against infection of Covid 19 in comparing to other receiving the other biologicals or conventional Therapy or not.

Objectives: Our objective was to determine if tocilizumab had a primary protection against SARS-CoV2 in comparing to patients were on other biologicals.

Methods: A Retrospective study was done among 100 patients with rheumatic diseases (Group 1: 10 on tocilizumab, Group2: 40 (30 on antiTNF and 10 on IL17 antagonist), Group3: on cDMARDs) from March to Dec 2020. Detailed history, clinical presentation, laboratory, computed tomography of chest and PCR for covid 19 if presented among infected patients.

Results: Among 100 patients of median age 21, 19 patient (19%) had infected with Covid 19 (2 on tocilizumab, 6 on antiTNF, 1 on IL17 antagonist, 10 on cDMARDs). Symptoms were reported fever (89.4%), Fatigue (78.9%), myalgia (78.9%), Headache (73.7%), Dyspnea (52.6%), Cough (47.3%), chest pain (26.3%) and hypoxia (5%). CT findings were positive in 10 patients (52.63%) while PCR was done and positive in 15 out of 19 (78.94%). Nevertheless, there was no significant statistically difference between groups according to infection with SARS-CoV2. ($p=0.704$)

Conclusion: Tocilizumab is not shown to be protective against SARS-CoV2 (COVID 19) infection compared to other biological or cDMARDs in patients with rheumatic diseases.

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AB0655 RHEUMATOID ARTHRITIS ACTIVITY BEFORE AND AFTER COVID-19 LOCKDOWN PERIOD

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Background: The COVID-19 global pandemic has had a great impact on world population due to morbidity, mortality and restriction measures in order to stop the progression of COVID-19.

Patients with rheumatic and musculoskeletal diseases, and especially rheumatoid arthritis (RA) patients, being one of the vulnerable classes of chronic patients, were recommended to follow the government's rules¹.

Objectives: The aim of this study was to evaluate DAS-28-ESR in patients with rheumatoid arthritis before and after lockdown period.

Methods: This is a multi-center observational study including 85 patients which were evaluated before and after lockdown for their disease activity score according to DAS-28-ESR score. They had been diagnosed with rheumatoid arthritis more than 5 years ago. A thorough physical examination was performed before and after the lockdown period. It included examination of tender and swollen joints and patient's global health. They were completed with all required laboratory data, including erythrocytation rate. For a more accurate calculation, DAS-28-ESR was used in an electronic version. Patients with other inflammatory or infective diseases were excluded from the study. All data were statistically evaluated using statistical tests such as t-student test.

Results: The first group (the one before lockdown) had an average DAS-28-ESR of 4.7 while after the lockdown period, the average DAS-28-ESR was 5.16.

After statistically evaluating all data, it was found that there exists a significant difference between DAS-28-ESR score before and after COVID-19 lockdown ($p=0.0011$).

Conclusion: Our study showed that lockdown period due to COVID-19 pandemic, has aggravated disease activity in patients with Rheumatoid Arthritis. This may be consequence of various causes such as physical inactivity and difficulty to follow-up or to take the medication properly.

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AB0656 SARS-COV-2 INFECTION IN PATIENTS WITH RHEUMATIC DISEASE: A TERTIARY SINGLE-CENTER EXPERIENCE

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Background: In the context of the coronavirus (SARS-CoV-2) pandemic, several studies looked at the relation between rheumatic disease and SARS-CoV-2. It remains unclear whether these patients are at increased risk of developing more severe cases of coronavirus disease (COVID-19) or not.

Objectives: The objective of this descriptive study is to report the characteristics and outcomes of rheumatic patients that had a history of confirmed SARS-CoV-2 infection. Findings have also been compared to some of the existing publications on COVID-19 in these patients.

Methods: Between November 17, 2020 and January 18, 2021, a single-center observational study was conducted in the rheumatology department of the Emergency Clinical County Hospital and the University of Medicine and Pharmacy "Iuliu Hatieganu" in Cluj-Napoca, Romania. The sample consisted of 62 rheumatic patients with a positive polymerase chain reaction test from nasopharyngeal/oral swab. Data on both systemic autoimmune disease and COVID-19 was collected using a survey, by means of telephone or in the outpatient clinic setting. Data on the patient rheumatologic condition was also collected from the electronic health records available within our department

Results: 62 patients were included, with 85.48% females and 14.51% males, and a median age of 52 years (SD +/- 14).

The most frequent comorbidities were high blood pressure (HBP) 46.77%, dyslipidaemia 19.35%, liver disease 17.74%, and interstitial lung disease (ILD) 12.90%. Recurrent COVID-19 symptoms included: cough (62%), fever (46.77%), anosmia (46.77%), ageusia (30.64%), headache (29.03%), gastrointestinal symptoms (27.41%) and myalgia (25.80%).

Out of the entire 62 sample, 41 patients had an inflammatory arthritis (IA) diagnosis, with the most frequent being rheumatoid arthritis (RA) - 68.29%, followed by ankylosing spondylitis - 21.95%, psoriatic arthritis - 7.31% and 2.43% with Still disease. Only 10 patients suffered from connective tissue disease (CTD): 3 systemic lupus erythematosus, 2 poli/dermatomyositis, 2 Sjogren syndrome (SjS), 2 mixed connective tissue disease, 1 systemic sclerosis (SSc). Another 10 patients had overlapping syndromes with the most frequent (40%) overlap between RA and SSc. One patient had osteoarthritis.

49 patients followed a treatment with conventional synthetic disease-modifying anti-rheumatic drugs with 51.2% of them being treated with Methotrexate.

14 of our patients received glucocorticoids (GC), but no relation between the GC dose and COVID-19 severity could be observed. Only 3 patients with doses greater than 10mg/day were present in the cohort and 2 developed mild while 1 developed an asymptomatic COVID-19 course.

22 patients had received biological treatment. Anti TNF alpha medication was administered to 13 of these, and mostly consisted of Adalimumab, Etanercept and Golimumab. The anti TNF alpha patients were asymptomatic or had mild forms of COVID-19 (93.30%).

8 cases had ILD: 3 RA patients, 3 overlapping syndromes, 1 SSc and 1 SjS. The median age was 59.5 years (SD +/- 10). 25% exhibited severe, 37.5% moderate, 25% mild and 12.5% asymptomatic COVID-19.

The COVID-19 severity in our sample was as follows: 12.90% of the patients were asymptomatic, 59.67% exhibited a mild form, 19.35% a moderate one, and out of the 8.06% with a severe case of COVID-19, 1 patient died. The median age in the severe cases of COVID-19 was 66 years (SD +/- 12) and HBP was the most common comorbidity.

Conclusion: Most patients in this sample were either asymptomatic or had a mild COVID-19 evolution. Although the research design has multiple limitations, rheumatic pathology does not seem to be a higher risk factor for severe COVID-19 than other associated comorbidities. With that in mind, ILD patients should be closely monitored as even in our limited sample size a worse evolution of COVID-19 has been observed. Biological treatments, especially anti TNF alpha might help in reducing the severity of COVID-19, but this outcome could have been associated in our sample with other factors like lower median age and less comorbidities.

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AB0657 PERCEIVED STRESS AND FOOD INSECURITY IN PREGNANT AND POSTPARTUM WOMEN WITH RHEUMATIC DISEASES DURING THE COVID-19 PANDEMIC

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