and Gregorio Maran Hospital). Patients were selected if they were diagnosed of an IMID (rheumatoid arthritis, psoriatic arthritis, espondyloarthritis, ulcerative colitis and Crohn's disease) and had COVID-19 infection between February and April 2020.

Demographic, clinical, analytical and treatment data were collected. Logistic regression was used to evaluate potential predictors.

Stata 15.1 was used to perform statistical analysis.

Results: 91 patients were recruited. 55 suffered from a rheumatic disease and 36 suffer IBD. Baseline characteristics are shown in Table 1.

Univariable analysis reached age, comorbidity, female gender, flu vaccine, arthropathy, basal classical synthetic anti-rheumatic drugs (csDMARD), pneumonia and basal C-reactive protein (CRP) as potential predictors of non-severe (absence of death, respiratory insufficiency, intensive care unit admission or sepsis) COVID-19 disease ($p < 0.2$). After multivariable analysis, only female gender (OR 4.60 [CI95% 1.00, 21.2] $p=0.050$), lower age (OR 0.94 [CI95% 0.88, 1.00] $p=0.042$) and lower basal levels of CRP (OR 0.87 [CI95% 0.77, 0.97] $p=0.010$) were predictors for non-severe disease ($p < 0.005$).

Mean time of healing (symptoms solved in outpatient and hospital discharge in admitted) from COVID-19 was 13.8 days (SD 16.3). Univariable analysis showed arthropathy, COVID-19 symptomatic and basal glucocorticoids (GC) dose as potential predictors of higher time-to-healing from COVID-19 disease ($p < 0.2$). After multivariable analysis, only lower GC basal dose predicts higher time-to-healing (OR -1.83 [CI95% -2.81, -0.84] $p=0.001$).

11 patients deceased because of COVID-19. Univariable analysis reached age, basal csDMARD, pneumonia and basal CRP as potential predictors of COVID-19 mortality ($p < 0.2$). After multivariable analysis, only higher age was a predictor for mortality (OR 1.14 [CI95% 1.04, 1.25] $p=0.006$).

Conclusion: IMID patients showed similar predictors of mortality than general population involving COVID-19. Immune-modulating agents did not seem to overshadow the prognosis of COVID-19 infection. Female gender, lower age and lower basal CRP could select a cohort of "good" prognosis patients with mild COVID-19 disease as well higher age points out the worst prognosis. Even that, each case should be individualized.

REFERENCES:

- [1] Ceribelli A, et al. Recommendations for coronavirus infection in rheumatic diseases treated with biologic therapy. *J Autoimmun.* 2020;109:102442.
- [2] Micaela F, et al. COVID-19 in patients with rheumatic diseases in northern Italy: a single-centre observational and case-control study. *Lancet Rheumatol* 2020;2:e549-56.

Table 1. baseline characteristics between non-severe and severe COVID-19 patients.

Variables	Non-severe (67)	Severe (24)	p-value
Age, mean (SD)	56.8 (14.6)	70.2 (13.7)	0.000
Female, n (%)	38 (63.3)	10 (41.7)	0.070
HLA-B27 +, n (%)	9 (17.7)	2 (10.0)	0.423
Disease evolution (years), median (IQR)	12.5 (5;24)	14 (9;20)	0.891
Comorbidity, n (%)	35 (59.3)	21 (87.5)	0.013
Flu vaccine, n (%)	51 (85.0)	23 (95.8)	0.166
Basal GC, n (%)	18 (30.0)	12 (50.0)	0.084
csDMARD, n (%)	32 (47.8)	16 (66.7)	0.111
b/tsDMARD, n (%)	35 (52.2)	11 (45.8)	0.590
COVID-19 symptoms, n (%)	55 (93.2)	24 (100)	0.191
Pneumonia, n (%)	31 (51.7)	21 (87.5)	0.002
Admission, n (%)	30 (50.0)	23 (95.8)	0.000
CRP, median (IQR)	3.5 (2;9)	10.0 (3;20)	0.005

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4059

POS1265

CHALLENGES OF EGYPTIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS DURING COVID-19 PANDEMIC

S. Tharwat¹, S. Zohdy². ¹Mansoura University, Internal Medicine, Rheumatology & Immunology, Mansoura, Egypt; ²Faculty of Medicine, Horus University, Internal Medicine Department, Mansoura, Egypt

Background: Coronavirus disease 2019 (COVID-19) pandemic in Egypt is part of worldwide COVID-19 pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[1]. The current COVID-19 pandemic has contributed to substantial deterioration to healthcare systems worldwide [2]. Systemic lupus erythematosus (SLE) patients may have several barriers as medications access during the pandemic.

Objectives: The aim of this study was to assess the tremendous challenges faced by the Egyptian SLE patients during COVID-19 pandemic either in the drug shortage, hospitalization or COVID-19 infection through a questionnaire-based study.

Methods: This questionnaire-based study was carried out on 200 patients with SLE from Egypt. The questionnaire provided covered socioeconomic status, lupus disease data, knowledge about COVID-19 infection and medical and family history of COVID-19 infection.

Results: The mean age of the participants was 30.1 years (with SD 8.4). Among the participants, 180 (90 %) were females and 172 (86%) were from urban areas. Corticosteroids and mycophenolate mofetil and antimalarials were the most used medications (87%, 87% and 70 % respectively). 140/200 (70 %) of the participants reported difficulty in obtaining medications during COVID-19 pandemic particularly antimalarials (60%). Lupus disease activity was affected by the drug shortage in half of the participants. Twenty-eight (14%) patients lost their jobs while 26 patients (13%) reported that their work was severely impacted by the crisis. Among the precautions taken for prophylaxis against infection wearing protective masks (74%) and using disinfectants of the hands several times per day (67%) were the most reported measures. Forty patients (20%) had to stop or reduce taking NSAIDs to guard against COVID-19 infection while 10 patients (5%) had to start taking antimalarials as a prophylaxis. Among 34 patients (17%) who needed hospitalization, 26 (76%) were mainly due to lupus activity and 24 (71%) of them found difficulty on hospital admission because of COVID-19 pandemic. About 40 % of the participants reported that they had at least one close relative had confirmed COVID-19 infection. In addition, thirty-two patients (16%) had confirmed COVID-19 infection. Most of them became clinically free after treatment. However, about half of them had lupus flare and had to change the medications used for treatment of lupus.

Figure 1 shows the differences between males and females in response to the questionnaire. 58.6% of females versus 20 % of males would use telemedicine for remote contact with the rheumatologist. Most of females were more keen than males to wear the masks (76.7% versus 50 % respectively).

Conclusion: The current COVID-19 pandemic has negative impact on the healthcare provided to SLE patients in Egypt. Patients with SLE faced shortage their medications especially antimalarials.

REFERENCES:

- [1] Today, E.J.R.o., Egypt announces first Coronavirus infection. 2020. **28**(02): p. 2020.
- [2] Rath, M., et al., Impact of the COVID-19 pandemic on patients with systemic lupus erythematosus: Observations from an Indian inception cohort. 2021. **30**(1): p. 158-164.

Figure 1. The frequency of the response to questionnaire in Egyptian lupus patients by gender

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4064

POS1266

COVID-19 IN PATIENTS WITH RHEUMATIC DISEASES: SURVEY-BASED ASSESSMENT OF THE RISK OF HOSPITALIZATION

D. Karateev¹, P. Pchelnikova², E. Luchikhina¹, T. Boboshko³. ¹Moscow Regional Research and Clinical Institute n.a. M.F. Vladimirsky (MONIKI), Moscow Regional Rheumatology Center and Department of Rheumatology, Moscow, Russian Federation; ²EULAR Standing Committee of People with Arthritis/ Rheumatism in Europe, PARE, Zurich, Switzerland; ³Russian Rheumatology Association "Nadezhda", Moscow Branch, Moscow, Russian Federation

Background: Prognosis of the need for in-hospital treatment in patients suffered with COVID-19 is crucial to optimize the use of medical resources. Risk factors of hospitalization due to COVID-19 are not sufficiently studied in patients with rheumatic diseases (RD).

Objectives: To reveal factors associated with the risk of hospitalization of patients with RD due to SARS-CoV-2 (COVID-19) infection.

Methods: We analyzed data based on the preliminary results of the patients registry from the ongoing project "Patient's Opinion on Covid-19 in Rheumatic Diseases (POPCORD)". The registry contains data collected directly from Russian-speaking patients with different RD who completed a special questionnaire, located on the website <https://revmo-covid.ru/>. The questionnaire includes information on whether the patient had COVID-19 and related information, as well as information on rheumatic disease and its treatment.

Results: 1050 patients (92% from Russian Federation, 8% from other locations) completed the survey - 93% females, mean age 40,28±11,26 (M±SD, median 38 [32;48]), BMI 24,52±5,38 (median 23,42 [21;27]), disease duration 7,91±8,46 (median 5,00 [2;11]). Diagnoses reported: rheumatoid arthritis (49%), ankylosing spondylitis (14%), systemic lupus erythematosus (13%), psoriatic arthritis (6%), Sjogren's disease (5%), systemic sclerosis (3%), other (10%). 51% of respondents indicated concomitant conditions: arterial hypertension (19%), obesity (15%), kidney disease (11%), cardiovascular disease (7%), liver disease (6%), IBD (5%), other lung diseases, including ILD (5%). 96% of patients reported constant intake of antirheumatic drugs: steroids (37%), NSAIDs (46%), hydroxychloroquine (22%), csDMARDs (66%), bDMARDs (17%), tsDMARDs (2%). 344 (31,8%) patients reported COVID-19 or suspected SARS-CoV2 viral pneumonia, 282 (84,4%) were treated as outpatients, 52 (15,6%) were hospitalized. Relatives or physicians reported 3 cases of death related to COVID-19 (0,9% of total mortality, 5,8% of in-hospital mortality). Table 1 contains odds ratios for the main factors, related to hospitalization, based on the results of the survey. Analysis of the survey participants' parameters (patients' characteristics, treatments etc.) did not reveal any significant variables, related to increased risk of hospitalization. No increased risk related to any groups of anti-rheumatic drugs or any particular medications was found either. Risk of hospitalization was significantly lower in patients with ankylosing spondylitis.

Table 1. Factors, related to hospitalization due to COVID-19 in patients with RD.

Factor	OR [95% CI]	p
Age ≥50 y.o.	2,12 [1,14;3,94]	0,99
Age ≥65 y.o.	9,04 [2,10;38,98]	1,00
Female	1,73 [0,70;4,25]	0,92
Body mass index ≥35	2,09 [0,71;6,10]	0,88
Current smoking	0,47 [0,11;2,06]	0,24
Smoking in the past	1,43 [0,83;2,48]	0,92
Diagnosis of ankylosing spondylitis	0,25 [0,06;1,05]	0,02
Comorbid conditions:		
• Diabetes mellitus	3,39 [1,07;10,77]	0,99
• Cardiovascular disease	1,91 [0,72;5,08]	0,94
• Asthma	5,42 [1,07;27,61]	0,99
• COPD	0,42 [0,05;3,26]	0,34
• Kidney disease	1,57 [0,71;3,50]	0,91
• Liver disease	0,90 [0,26;3,18]	0,57
• Neurological disorders	5,42 [0,75;39,36]	0,99
• No concomitant conditions	0,70 [0,40;1,25]	0,14
Therapy:		
• Oral steroids	1,37 [0,82;2,29]	0,91
• NSAIDs	1,12 [0,67;1,87]	0,72
• Traditional DMARDs	1,39 [0,89;2,17]	0,94
• Biologic DMARDs	1,15 [0,55;2,43]	0,72
• Targeted synthetic DMARDs (JAK-inhibitors, apremilast)	3,25 [0,75;14,03]	0,97
Level of concern about COVID-19:		
• Low level / no concern about COVID-19	0,57 [0,28;1,17]	0,08
• Medium level of concern	0,60 [0,28;1,28]	0,12
• High level of concern	1,69 [1,03;2,76]	0,99

Conclusion: Survey of patients with RD did not show significantly increased risk for hospitalization due to COVID-19 in relation with specific diagnosis, any anti-rheumatic medications, as well as comorbid conditions and main patient characteristics. Diagnosis of ankylosing spondylitis related to significantly lower risk of hospitalization.

Acknowledgements: Dr Anna S Misiyuk from V.A. Nasonova Institute of Rheumatology, Moscow, Russia.

The COVID-19 Russian patient experience survey is conducted on behalf of Russian Rheumatology Association "Nadezhda". The project was partially granted by BIOCAD.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4065

POS1267

CLINICAL COURSE OF NEW SARS-COV-2 INFECTION IN CHILDREN WITH RHEUMATIC DISEASES: RETROSPECTIVE STUDY OF SINGLE PEDIATRIC RHEUMATOLOGY CENTER

I. Nikishina¹, Z. Kolchidova¹, V. Matkava¹, A. Shapovalenko¹, S. Arsenyeva¹, M. Kaleda¹, E. Fedorov¹, S. Salugina¹, V.A. Nasonova Research Institute of Rheumatology, Pediatric Department, Moscow, Russian Federation

Background: About one year ago at the beginning of the new SARS-CoV-2 infection pandemic, it was expected, that rheumatic disease (RD) and immuno-suppressive therapy could predispose to a more severe course of the Covid-19 infection. At that time, it was unspeakable how this infection would occur in children with RB in compare to adults. Now it's time to draw preliminary conclusions.

Objectives: to analyze all features of COVID19 infection in children with RD

Methods: The retrospective single center study of all patients with pediatric RD who had the COVID19 infection up to the end of January 2021. It was analyzed all variety of clinical manifestations, changing in therapy at the time of COVID-19 and after it, the dynamics of the RD and consequences of the new viral disease.

Results: The study included 66 patients under the age of 18 with various RS, including autoimmune disease (AIDs). The diagnostic distribution, sex ratio, age and previous therapy present in the Table 1. There were patients treated with DMARDs (methotrexate -47, hydroxychloroquine -3, mycophenolate mofetil -2, colchicine -1), NSAID monotherapy -6, systemic steroids -10; 29 patients received Biologics, including combination with methotrexate. None of our patients had a severe course of the COVID-19, none of 66 patients was hospitalized for emergency indications in the intensive care unit or in other specialized departments. The diagnosis of Covid-19 infection was based on different evidences: positive PCR in 15 (23%) cases, high levels of immunoglobulins G and M - in 64 (97%) and 7 (11%) respectively, viral pneumonia was confirmed by CT in 2 (10%) cases. A manifest clinical picture presented just in 21 (32 %) of patients, the others were carried the disease asymptotically. Among the clinical manifestations of SARS-CoV-2 that were observed in our patients were the following: fever, as the most frequent symptom - 19 (90%), rhinitis - 12 (57%), anosmia - 10 (48%), sore throat - 3 (14%), arthralgia/myalgia in 4 (19%), rash - 1 (5%) case, cough - 4 (19%) cases. it is important to note that until July 2020, only 4 patients were registered, and in the next 6 months – 62. The treatment against Covid-19 in our patients with clinical symptoms included: NSAID monotherapy -4 (19%), Systemic steroids -2 (10%), Hydroxychloroquine -2(10%), Antibiotics-5 (24%).

Table 1. Clinical characteristics of children with RD according to presence of symptoms of Covid-19

Parameter	Covid-19 symptomatic course (n=21)	Covid-19 asymptomatic course (n=45)	p-values
Sex ratio (F/M)	9/12	30/15	ns
Duration of RD (Me. Years)	4 (2;6)	4 (2;7)	ns
Age	15 (13; 17)	11 (8;13.5)	<0,001
(years)			
<10 yrs	1	19	<0,05
>10 yrs	20	26	<0,001
Covid-19 evidences			
IgG Covid-19 +	19	45	ns
IgM Covid-19 +	3	4	ns
PCR Covid-19 +	11	0	ns
Diagnosis of RD			
JIA non-systemic	14	31	ns
sJIA	1	3	ns
SLE	4	1	ns
JDM	1	1	ns
Scleroderma		6	ns
AIDs (CAPS, FMF, FOP)	1	3	ns
Previous therapy			
NSAID monotherapy	3	6	ns
DMARDs	16	33	ns
Systemic steroids	4	7	ns
TNF-inhibitors	5	12	ns
Abatacept	1	3	ns
IL6-inhibitors (Tocilizumab, Sarilumab)	0	2	ns
JAK-kinase inhibitors	1	2	ns
Worsening/flare of RD after Covid-19 infection	5	0	p<0,05

Conclusion: Our study suggests that the presence of RD and immunosuppression therapy does not lead to an increased frequency or severe course of Covid-19 infection in children. The final conclusion will be drawn as the data accumulates.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4101

POS1268

COVID-19 VACCINE HESITANCY AMONG RHEUMATOLOGY PATIENTS RECEIVING INFLUENZA VACCINE

V. Valerio¹, H. C. Shen², E. Field¹, E. G. McDonald³, A. Turner⁴, S. Bernatsky³, M. Hudson⁵, I. Colmegna³. ¹The Research Institute of the McGill University Health Care Centre, Medicine, Montreal, Canada; ²University of Montreal, Medicine, Montreal, Canada; ³McGill University Health Care Centre, Medicine, Montreal, Canada; ⁴McGill University Health Care Centre, Nursing, Montreal, Canada; ⁵Jewish General Hospital, Medicine, Montreal, Canada