Methods: We present the case of a 48 years old man with an unremarkable history who underwent BNT162b2 vaccination.
Results: Five days after the first shot of BNT162b2 vaccine, the patient refer the onset of left inguinal adenopathy, and erythematous dermatitis of the trunk. Ultrasound of the groin found increase bilateral inguinal lymph nodes with reactive characters. Contextually, erythematous, itchy and painful nodular lesions appear in the lower and upper limbs as well as acrocyanosis and paresthesia in the right hand and foot. The tests performed showed thrombocytopenia and eosinophilia. While, CRP, search for fecal parasites, pANCA, cANCA, ANA, RAST test, serum tryptase were all absent. Haematological evaluation, bone marrow biopsy, karyotype and molecular biology (FIP1L1/PDGFRa), were performed, all results negative. The patient was admitted in Internal Medicine ward for worsening of skin lesions and of acrocyanosis with gangrenous lesions at the tips of the fourth finger of the right hand. An angio-CT showed an occlusion of the right ulnar artery. At electromyography an axonal sensory neuropathy was found. The skin biopsy showed fibrinoid necrosis of venules of the superficial vascular plexus associated with numerous eosinophils, lymphocytes and karyorrhetic debris (Figure 1). High-resolution CT scan described diffuse minimal accentuation of the interstitial texture with micronodular aspects and some ground glass appearance. The diagnosis of hypereosinophilic syndrome was made. Therapy with Methylprednisolone 500 mg/daily for 3 days then Prednisone 1 mg/ kg daily in association with IL-5 inhibitor (mepolizumab) with good clinical response, in addition to anticoagulation with warfarin was started.

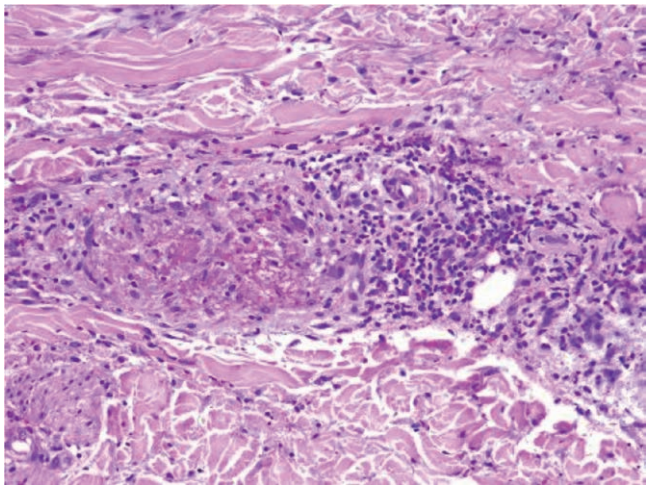

Figure 1.

Conclusion: To our knowledge this might be the first case of (HES) following COVID vaccine. As our experience, due to the short commercialization of antinSARs-CoV2 vaccines, is limited further studies are needed to explore the possible effect on small-medium vessels.
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AB1154 HUMORAL AND CELLULAR RESPONSE TO A THIRD BOOSTER DOSE SARS-COV- 2 VACCINATION IN PATIENTS WITH AUTOIMMUNE DISEASE: A CASE SERIES

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Background: Patients with systemic rheumatic diseases (SRD) are at increased risk for viral infections and successful vaccination is crucial to combat COVID-19 pandemic in this population. However, reduced antibody responses have been described in a proportion of SRD individuals on immunosuppressant agents including mycophenolate (MMF).
Objectives: We aimed to assess humoral and cellular response of SRD patients who received a booster SARS-CoV- 2 vaccination.
Methods: Twenty patients without history of COVID-19 infection (11 men, median age 58 years (range:38-74), 12 on treatment with MMF (2gr daily) due to systemic sclerosis (n= 6), inflammatory myositis (n=4) and systemic lupus erythematosus (n=2) and 8 on tumor necrosis factor-alpha inhibitors (anti-TNF) due to spondyloarthritis (n=5), rheumatoid arthritis (n=2) and Bechet disease (n=1) were included. All were on monotherapy with anti-TNF except patient with Bechet. Patients on MMF discontinued treatment for 1 week after the booster dose whistle no treatment modification was implemented in anti-TNF group. Serological response to vaccination was assessed using the Abbott SARS-CoV-2 IgG II Quant assay. Cellular immunity was estimated via interferon-γ produced by CD4+ and CD8+ T-lymphocytes in response to a SARS-CoV-2 peptide cocktail, with the SARS-CoV-2 ELISA Kit.
Results: Nineteen patients (95%) demonstrated positive serological response following booster vaccine dose (Table 1). Only one female patient in MMF group failed to develop adequate levels of antibodies. The median antibody titers of patients under MMF and anti-TNF was 647.90 BAU/mL (range: 0.71-4795.32 BAU/mL) and 542.98 BAU/mL (range: 4.32-1391.33 BAU/mL) respectively. No statistically significant difference was found between the two groups. Regarding cellular immunity a T-cell response was present in all patients on monotherapy with anti-TNF but only in 7/12 under MMF including the one with negative humoral response.
Conclusion: We report sufficient immunogenicity following a third booster vaccine in patients with RSD on immunossupresive medications coupled by a strong cellular immune response particularly in patients on anti-TNF monotherapy. Perrivaccination management of immunosuppressive therapy represents an important parameter of vaccine administration in patients with RSD.
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AB1155 PAUSING METHOTREXATE IMPROVES IMMUNOGENICITY OF COVID-19 VACCINATION IN PATIENTS WITH RHEUMATIC DISEASES

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Background: Several research groups have recently described a reduced vaccination response to COVID-19 vaccination under methotrexate (MTX) (1,2). The increase in humoral immune response when pausing MTX two weeks after vaccination has already been described for influenza vaccination (3). However, data regarding MTX-hold during COVID-19 vaccination are still lacking.
Objectives: To study the effect of MTX and its discontinuation on the humoral immune response after COVID-19 vaccination in patients with autoimmune rheumatic diseases (AIRD).
Methods: In this retrospective study, neutralising SARS-CoV-2 antibodies were measured after second vaccination in 64 rheumatic patients on methotrexate therapy, 31 of whom temporarily paused medication without a fixed regimen. The control group consisted of 21 AIRD patients without immunosuppressive medication.
Results: MTX patients showed a significantly lower mean antibody response compared to AIRD patients without immunosuppressive therapy (71.8 % vs 92.4 %, p<0.001). For patients taking MTX, age correlated negatively with immune response (r=-0.49; p<0.001). All nine patients with antibody levels below the cut-off were older than 60 years. Patients who held MTX during at least one vaccination showed significantly higher mean neutralising antibody levels after second vaccination, compared to patients who continued MTX therapy during both vaccinations (83.1 % vs 61.2 %, p=0.001). This effect was particularly pronounced in patients older than 60 years (80.8 % vs 51.9 %, p=0.001). The impact of the time

period after vaccination was greater than of the time before vaccination with the critical cut-off being 10 days.

Conclusion: MTX reduces the immunogenicity of SARS-CoV-2 vaccination in an age-dependent manner. Our data further suggest that holding MTX for at least 10 days after vaccination significantly improves the antibody response in patients over 60 years of age.

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AB1156 COVID19 CLINICAL COURSE AND OUTCOMES IN PATIENTS WITH RHEUMATIC DISEASES: DATA FROM SINGLE INPATIENT CLINIC

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Background: Considerations regarding clinical manifestations and outcomes of COVID19 in patients (pts) with autoimmune rheumatic diseases (ARD) still remain ambiguous.

Objectives: This study aims to assess the clinical course of moderate and sever COVID19 and its outcomes in hospitalized pts with ARD in comparing with osteoarthritis (OA) pts.

Methods: We have analyzed clinical picture and outcomes of COVID19 in 84 pts with RD admitted to inpatient clinic. 36 ARD pts and 48 OA pts were observed during whole period of hospitalization. Clinical, laboratory and instrumental data characteristic of COVID19 were monitored in both groups. The following COVID19 outcomes: ICU admission, mechanical or non-invasive ventilation and death were registered. The impact of concomitant diseases and antirheumatic therapy on adverse outcome was taken into account.

Results: The ARD group preferably consisted of SLE pts (10 pts - 27.78%), RA pts (12 pts - 33.33 %), and systemic vasculitis – SV (12 pts - 33.33%), there were only 2 pts with psoriatic arthritis -PsA (5.56%). In OA group there were 23 pts with knee lesion, 14 pts with hip lesion and 11 pts with both. The structure of ARD and OA groups were similar on demography and associated conditions (CVD, T2DM, obesity). Severe coronovirus pneumonia (CT≥3) was diagnosed in 27.78% pts from ARD group and 35.42% pts from OA group ($p>0.05$, χ^2-criterion). Prevalence of leucopenia, elevated CRP and ferritin in compared groups was comparable, but lymphopenia and elevated IL6 levels>1000 pg/ml were detected oftener in ARD group (77.78% vs 41.46%, $p< 0.05$; 44.44% vs 18.75%, $p<0.05$ respectively). There were no significant differences in mean indexes of WBC (6.55±2.41 vs 6.93±1.84, $p>0.05$), CRP (69.48±9.32 vs 62.19±7.35, $p>0.05$), ferritin (471.03±26.18 vs 428.14±19.02, $p>0.05$). However ICU admission and non-invasive ventilation was oftener in ARD group than in OA group: 38.89% vs 18.75% ($p<0.05$ χ^2-criterion). Fatal outcome was registered in 3 pts (8.33%) from ARD group (SLE -2, ANCA-vasculitis-1) and in 3 pts (6.25%) with concomitant CVD, T2DM and/or obesity from OA group. All deceased pts from ARD group had been treated with GC≥ 8mg, csDMARD and biological agents (rituximab in 2 cases).

Conclusion: The severity of COVID19 clinical course in general was identical in pts with ARD and in OA pts. At the same time lymphopenia and significantly elevated IL6 levels were detected in ARD group oftener than in OA group. Despite the comparable mortality rate in observed groups, more pts from ARD even without concomitant conditions required ICU admission and non-invasive ventilation. Deceased pts with ARD received moderate dose of GC, conventional and biological DMARDs, preferentially rituximab. In OA mortality from COVID19 was associated with CVD and/or metabolic disorders.

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AB1157 CLINICAL CHARACTERISTICS OF PATIENTS WITH RHEUMATIC DISEASES AFTER COVID-19 IN THE REPUBLIC OF TATARSTAN

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Background: The management of patients with rheumatic diseases (RD) who have undergone a new coronovirus infection (NCI) is an urgent and significant problem.

Objectives: To study the course of the NCI and its influence on the course of RD in the Republic of Tatarstan.

Methods: From June 2020 to January 2022, 159 cases of NCI with a confirmed SarsCoV2 PCR result and/or X-ray computed tomography (CT) of the lungs in patients with RD were analyzed. The study included 104 patients with RA, 36 patients with AS, 18 patients with PsA. RD activity before NCI was low in 56 (35.2%) patients, moderate in 91 (57.3%), and high in 12 (7.5%) patients. Distribution by gender: 113 (71.0%) females, 46 (28.9%) males, mean age 58 [46; 64]. 56 patients (49.5%) were hospitalized, the average age of those hospitalized was 61 [49; 67] year. The average duration of RD at the time of NCI was 11 [7; 16.75] years. The results of clinical and laboratory examinations were evaluated before and 1-3 months after the NCI.

Results: Manifestations of infection in patients with RD in terms of frequency and severity were comparable to the course of NCI in the population: intoxication with fever above 38C, respiratory symptoms, ageusia, anosmia, pneumonia. 27.1% (43) of patients had asymptomatic or mild course of COVID-19, 64.1% (102) had moderate course, 8.8% (14) of patients - severe NCI. Lung involvement was detected in 116 (72.9%) patients. Patients received NCI therapy according to national guidelines. The outcome of COVID-19 in 154 (96.9%) patients was recovery, in 5 (3.1%) patients it was fatal, 3 of them were on rituximab therapy. A total of 8 patients received rituximab. After undergoing NCI, 26 (16.4%) patients did not develop an increase in activity, in 76 (47.7%) patients RD corresponded to a moderate degree of activity. In 57 (35.9%) patients RD activity became high, 3 months after the NCI, a significant ($p<0.05$) increase in the activity of the main RD was observed due to clinical and laboratory (C-reactive protein) parameters, which required intensification of antirheumatic therapy.

Conclusion: The prevalence and course of COVID-19 in patients with RD did not generally differ from those in the population. The most unfavorable course of NCI in terms of life prognosis was observed in patients receiving rituximab for underlying RD. The COVID-19 contributes to an increase in the activity of the main RD.

Disclosure of Interests: None declared

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AB1158 CLINICAL CHARACTERISTICS OF POST-COVID SYNDROME IN PATIENTS WITH RHEUMATIC DISEASES IN THE REPUBLIC OF TATARSTAN

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Background: The management of patients with rheumatic diseases (RD) after a new coronavirus infection (NCI) is an urgent and significant problem.

Objectives: To study post-COVID manifestations in patients with RD in the Republic of Tatarstan.

Methods: From June 2020 to January 2022, 154 cases of NCI with confirmed SarsCoV2 PCR and/or X-ray computed tomography (CT) of the lungs in patients with