REFERENCES:


Disclosure of Interests: None declared

AB1192
SARS-CoV-2 VACCINE IN SPONDYLOARTHRITIS PATIENTS: OVERALL MODERATE/HIGH IMMUNOGENICITY IMPAIRED BY IMMUNOSUPPRESSANTS AND BIOLOGICAL THERAPY
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Background: We recently reported an attenuate immunogenicity in patients with autoimmune rheumatic diseases. However, the effect of spondyloarthritides (SpA) and its treatment on COVID-19 vaccine immunogenicity remains to be determined for this group of patients. We therefore aimed to evaluate humoral immune responses to inactivated SARS-CoV-2 vaccine (CoronaVac) in patients with SpA (axial spondyloarthritides and chronic arthritis) taking DMARDs and commonly used targeted biological therapies, compared with a control group (CG).

Objectives: Evaluate immunogenicity and safety of CORONAVAC (Sinovac, Beijing) in Spondyloarthritides (SpA) patients.

Methods: Prospective observational cohort patients diagnosed with 194 SpA and 183 CG were vaccinated with CoronaVac in two doses with a 28-days interval. 194 patients completed the study and could be paired with CG for immunogenicity analysis. Blood samples were collected in the days 0, 28 and 69 (D69) to evaluate anti-SARS-CoV-2 IgG seroconversion (SC) and presence of neutralizing antibodies (NAb) in participants with negative IgG and NAb at baseline.

Results: Patients and GC were comparable regarding age (p=0.93) and sex (p=1.00). Immunogenicity at D69 showed a moderate/high SC (80.2% vs. 95.7%, p<0.0001) and NAb positivity (61.6% vs. 82.7%, p=0.0001) in SpA but lower than CG. Factors associated with lower immunogenicity were older age (56.8 vs. 51.4, p=0.03318) and higher frequencies of prednisone (25.7% vs 4.2%, p=0.0013) and TNFi (20.2% vs. 13.7%, p=0.017) were independently associated with lower SC while prednisone (p=0.017) and methotrexate (p=0.006) and TNFi (p=0.027) were also associated with reduced NAb response.

Conclusion: Our finding of an excellent safety and moderate/high SC rate in SpA supports the recommendation of CoronaVac vaccination. The impaired immune response in the minority of patients under immunosuppressive and biological therapy requires novel strategies to enhance antibody response in this subgroup of patients.

REFERENCES:


Disclosures of Interests: None declared

AB1193
THE COURSE OF COVID-19 INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS RECEIVING VARIOUS BIOLOGICAL DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS
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Background: With the ongoing COVID-19 pandemic, the safety of biologic disease-modifying antirheumatic drugs in patients with rheumatic disease remains an important issue.

Objectives: to assess the course of COVID-19 infection in patients with rheumatoid arthritis receiving various biological disease-modifying antirheumatic drugs.

Methods: An analysis was made of the course of COVID-19 in patients with rheumatic diseases who were under observation at the North-Western State Medical University. I.I. Mechnikov in the period from March 2020 to November 2021. During this period, 198 (14.0%) cases of COVID-19 were registered out of 1389 patients included in the registries of the anticytokine therapy center. Among patients with rheumatoid arthritis who recovered from COVID-19 infection, 105 cases were registered, of which 53 patients received outpatient treatment, and 52 patients received inpatient treatment. In 76% of cases, patients received biological DMARDs in combination with synthetic DMARDs.

Results: Exacerbation of the articular syndrome was observed only in 12 (11.4%) patients with RA during COVID-19. The low percentage of exacerbations in patients with RD on the background of COVID-19 was probably associated with the use of dexamethasone at a dose of 16-32 mg, which has the ability to reduce the activity of the immune-inflammatory process in rheumatic diseases. This statement is confirmed by the fact that out of 52 patients with RA who were hospitalized for COVID-19, 16 patients (30.8%) received dexamethasone intramuscularly or intravenously, and 8 patients (15.4%) continued oral administration of this drug.

Table 1. The course of COVID-19 infection in RA patients treated with various biological DMARDs.

<table>
<thead>
<tr>
<th>Severity and outcomes</th>
<th>All patients (n=105)</th>
<th>Abatacept (n=11)</th>
<th>Rituximab (n=56)</th>
<th>IL-6 Inhibitors/Inhibitors (n=9)</th>
<th>TNF-alpha/JAK inhibitors (n=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>No hospitalization required</td>
<td>53 (50.5)</td>
<td>3 (27.3)</td>
<td>19 (33.9)</td>
<td>8 (88.9)</td>
<td>12 (80)</td>
</tr>
<tr>
<td>Hospitalization without oxygen support</td>
<td>31 (29.5)</td>
<td>5 (45.5)</td>
<td>18 (32.1)</td>
<td>1 (11.1)</td>
<td>3 (20)</td>
</tr>
<tr>
<td>Hospitalization with oxygenation or mechanical ventilation</td>
<td>24 (22.8)</td>
<td>3 (27.3)</td>
<td>19 (33.9)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Death</td>
<td>5 (4.8)</td>
<td>1 (9.1)</td>
<td>4 (7.1)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusion: The use of rituximab was associated with a more severe course of COVID-19, which required hospitalization in 66% of cases, compared with the group of patients treated with TNF-α inhibitors, in which hospital treatment was carried out only in 20% of cases. The introduction of blockers of co-stimulation of T-cells, IL-6 inhibitors, targeted synthetic drugs did not affect the severity of COVID-19.

Disclosures of Interests: None declared

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