Background: We present the first report of high-titer autoantibodies in NLRP3-associated autoinflammatory disease (NLRP3-AID). Because systemic autoinflammatory disease (SAID) is characterised by the lack of auto-reactive T cells or autoantibodies, we made a systemic review on the theme of autoantibody in SAID to clarify this phenomenon.

Objectives: We present the first report of high-titer autoantibodies NLRP3-AID, and discuss autoantibody in classical SAID.

Methods: We collected the clinical data of the patient with NLRP3-AID who had high-titer autoantibody, and made a systemic review about autoantibody in SAID.

Results: A 38-year-old Chinese Han patient was definitely diagnosed as NLRP3-AID because of cold-triggered urticaria-like rash and fever, arthralgia, binaural sensorineural deafness, chronic meningitis, high inflammatory marker and de novo NLRP3 T348M variant. Figure 1 shows pedigree of the patient. Meanwhile, she had positive antinuclear antibody (ANA) with a nucleolar pattern of 1:160, positive anti-β2GPI antibody 54-68 AUII (normal range <20 AU/ml), anti-mitochondria antibodies (1:1,240). Literature review found that 13 articles reported autoantibodies in Familial Mediterranean fever (FMF), and there was no autoantibody reported in hyperimmunoglobulinemia D syndrome (HIDS), TNF receptor–associated periodic syndrome (TRAPS) and NLRP3-AID. The prevalence of ANA, anti-dsDNA, RF and anti-CCP in patients with FMF was similar to healthy controls.

Conclusion: Patients with NLRP3-AID can have high-titer ANA and APLs by accident. If patients with high-titer autoantibodies have characteristic manifestations of SAIDs instead of typical features of autoimmune diseases, we should make the final diagnosis through detailed investigation and genetic testing.

References:
According to diagnoses are reported in Table 1. Arthritis (1.2%), Psoriatic arthritis (1.2%) and Fibromyalgia (2%). Force measures was 51.14 years (SD 14.66). Ninety-six (97.9%) patients were right handed.

Results: used for compression.

Objectives: To identify the required force that needs to be applied in order to obtain a positive Automated Squeeze Test (AST) in a cohort of patients with hand arthralgia.

Methods: Ninety-seven patients were recruited in Family Medicine Consultation and in Rheumatology Consultation of the Hospital Universitario “Dr. José Eleuterio González” in Monterrey, Nuevo León, México. Eligible patients were adults (aged≥18 years) with hand arthralgia (that wasn't caused by trauma) as their chief complaint. After obtaining informed consent and after a questionnaire application, patients were submitted to AST maneuver, using an automated compressor with different forces already predetermined in the interface of the software used for compression.

Results: In this cohort of 98 patients, 79 (80.6%) were women. The mean age was 51.14 years (SD 14.66). Ninety-six (97.9%) patients were right handed. The diagnoses were Osteoarthritis (OA) (16.3%), RA (5.1%), Undifferentiated arthritis (1.2%), Psoriatic arthritis (1.2%) and Fibromyalgia (2%). Force measures according to diagnoses are reported in Table 1.

Table 1. Diagnoses and mean forces

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>n (%)</th>
<th>Right hand force mean (kg/s²) (SD)</th>
<th>Left hand force mean (kg/s²) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA</td>
<td>16 (16.3)</td>
<td>3.53 (2.74)</td>
<td>3.18 (2.73)</td>
</tr>
<tr>
<td>RA</td>
<td>5 (5.1)</td>
<td>3.60 (2.53)</td>
<td>3.16 (1.36)</td>
</tr>
<tr>
<td>UA</td>
<td>1 (1.2)</td>
<td>7.60 (0)</td>
<td>7.80 (1.0)</td>
</tr>
<tr>
<td>PsA</td>
<td>1 (1.2)</td>
<td>7.60 (0)</td>
<td>7.80 (0)</td>
</tr>
<tr>
<td>FM</td>
<td>2 (2.0)</td>
<td>4.11 (4.40)</td>
<td>1.75 (1.06)</td>
</tr>
</tbody>
</table>

OA: Osteoarthritis; RA, Rheumatoid Arthritis; UA, Undifferentiated Arthritis; PsA, Psoriatic Arthritis; FM, Fibromyalgia; SD, Standard Deviation

Conclusion: In the cases of RA and OA, the means of force to obtain a positive AST was lower than in the rest of the diagnoses.

References:

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1637

AB1282-HPR

The levels of vitamin D in the spondyloarthritides. Does the deficit correspond to the inflammatory activity?

D. Castro-Corredor1, M. A. Ramírez Huarango2, A. I. Rebollo Giménez2, M. D. M. Cuillas Pérez1, C. Marín Silvente3, E. Saiz1, M. F. Pina1. 1Meseguer General University Hospital Morales, Murcia, Spain

Objectives: To determine the association between vitamin D deficiency and the degree of activity of the disease (inflammatory activity) in a cohort of patients with spondyloarthritides.

Methods: Case-control type analytical observational study. We propose a retrospective review of the database of patients with spondyloarthritis (according ASAS2010 criteria) who were treated in the outpatient clinics of the Rheumatology Service of the General University Hospital of Ciudad Real during June 2018 to June 2019. Patients with the data will be selected. necessary for the analysis of the variables under study. The numerical variables of normal distribution evaluated will be described using measures of frequency and measures of central tendency / dispersion as appropriate. To assess the association between vitamin D levels and activity index, the odds ratio (OR) is calculated, with a 95% confidence level and the T-student for related samples.

Results: The final results of the study are presented. 115 patients were analyzed, of which 64 were men and 51 women, with an average age of 45.97 years (± 13.41 DE). 47% were ankylosing spondylitis, 21% psoriatic arthropathy, 16% undifferentiated spondyloarthritis, 7% spondyloarthropathy associated with inflammatory bowel disease and 9% were spondyloarthropathy associated with inflammatory bowel disease. The average of the activity was a BASDAI of 4.57 (+/- 2.35 SD) and measured by DAPSA was 12.61 (+/- 6.76 SD). 63 and 14 patients had activity measured by BASDAI and DAPSA, respectively. 49.56% patients presented an elevation of acute phase reactants. Vitamin D levels were 23.81 (+/- 10.5 SD). 77.4% presented a decrease of vitamin D deficiency or insufficiency. When performing the association analysis, vitamin D deficiency / insufficiency presented an OR 10 (95% CI: 3.66-2722, p=0.00001) with the degree of activity measured with BASDAI and DAPSA and against the elevation of RCP it was 3.63 (95% CI 1.43-9.25, p = 0.0092) and against the elevation of ESR it was 2.76 (95% CI 1.09-7, 0, p = 0.0438). Regarding the comparative analysis of means between vitamin D deficiency/insufficiency and BASDAI/DAPSA it was +3.29 (95% CI: 1.34-8.09, p=0.0084).

Conclusion: Patients with spondyloarthritides, as in other autoimmune diseases, vitamin D deficiency is associated with increased inflammatory activity (BASDAI, DAPSA, RCP and ESR), measured in different time periods. Therefore, an optimization of vitamin D levels can implicitly improve the patient’s clinical situation, measured by both BASDAI and DAPSA, as well as by RCP and ESR. In addition, it is necessary to monitor bone mineral density due to the risk of fractures in these patients for their multi-etiologic (corticosteroid treatments, biological PAMES, inflammatory activity).

References:

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1549

AB1281-HPR

Concordance between tuberculin test and interferon-gamma release assay in the screening of latent tuberculosis infection in patients who are going to initiate a TNF inhibitor

M. D. M. Cuillas Pérez1, C. Marín Silvente3, E. Saiz1, M. F. Pina1. 1Meseguer General University Hospital Morales, Murcia, Spain

Background: The drugs that inhibit tumor necrosis factor (anti-TNF) alpha can reactivate a latent tuberculosis infection (LTBI) so requiring a rigorous screening before its onset. The tuberculin test (PT) has a high false negative rate in patients with immunomodulated rheumatic diseases (IMID) and false positive in patients vaccinated with Bacillus Calmette Guérin (BCG). The new methods of interferon gamma release (IGRA) seem to solve this problem, but its use is not standardized.

Objectives: Establish the degree of concordance in the diagnosis of LTBI between PT and IGRA in patients who are going to start an anti-TNF drug, in general, and in different situation like taking corticosteroids, being treated with disease modifying drugs, have been vaccinated with BCG or have risk factor for LTBI.

Methods: From May 2016 to November 2019, 195 patients with IMID who were in ITLB screening prior to the initiation of an anti-TNF drug were included in this study. The concordance between PT and IGRA was calculated using the Cohen’s kappa index, for the general sample first and then for subgroups. An analysis of the factor that influence the result of PT and IGRA has also been carried out.