Background: The incidence of juvenile gout is increasing in China. The clinical manifestations of juvenile gout and treatment strategies to reduce uric acid levels in children are not well described due to the limited number of cases in the past.

Objectives: We aim to describe the clinical characteristic of children with gout and study the treatment response to febuxostat.

Methods: These studies were approved by the Institutional Review Board of Guangdong Second Provincial General Hospital. We performed a retrospective analysis on 98 juvenile gout patients (age ≤ 18 years) evaluated in our hospital from Jan 2016 to Dec 2019. We analyzed clinical parameters, laboratory data and treatment response.

Results: The average age of disease onset in children with gout was 15.2 ± 2.0 years and the youngest patient was 9 years old. The majority of patients were male (94/98) and mean serum uric acid (sUA) level was 705.8 ± 145.7 μmol/L (reference range <420 μmol/L). More than half of the cohort had normal body mass index (mean 24.7 ± 4.7 kg/m²; range 14.9 to 36.1 kg/m²). Renal function was generally normal in these children (serum creatinine 99.6 ± 178.0 μmol/L). In terms of joint manifestations, juvenile gout preferentially affected finger joints (20%), ankles (28%) and metatarsal joints (MTP; 20%). The most frequent sites of initial gout attack were ankles (45%), MTP (39%) and fingers (6%). In addition, tophi can occur in pediatric patients and typically develop in the finger joints (54%). Tophi was observed in about 25% of juvenile gout patients, typically within the first two years of disease onset (mean duration 1.7 ± 0.9 years). We have found tophi in children as young as 10 years of age.

For treatment for chronic hyperuricemia, 32 patients (32.7%) were started on allopurinol and 5 patients (5.1%) received febuxostat. A decrease in sUA was observed in both groups after the first month of treatment (febuxostat: baseline 690.4 ± 99.7 μmol/L to 482.7 ± 140.8 μmol/L vs. allopurinol: baseline 728.8 ± 112.8 μmol/L to 565.0 ± 116.7 μmol/L; P = 0.477). Serum uric acid of 6 patients in the febuxostat group (none in the allopurinol group) dropped below 360 μmol/L. During follow-up after 3 months, further decline in sUA level were observed in patients treated with febuxostat (409.5 ± 83.4, compared with baseline P<0.001).

There were no statistical differences in Cr, AST and ALT between the groups. There were no adverse events related to treatment with febuxostat. All adverse events were mild and transient.

Conclusions: In our retrospective study of 98 juvenile gout patients, we showed that patients treated with febuxostat demonstrated a greater decrease in sUA levels compared with those treated with allopurinol. These findings could help clinicians to better understand the clinical manifestations and treatment response to gout.

References:

Disclosure of Interests: None declared. DOI: 10.1136/annrheumdis-2020-eular.4622

**SAT0508**

**DIAGNOSIS OF BEHÇET’S DISEASE: COMPARISON OF TWO SETS OF CLASSIFICATION CRITERIA. APPLICATION IN 111 PATIENTS OF A WELL-DEFINED POPULATION**

C. Alvarez Requena1, A. Herrero Morant1, L. Sanchez Bilbao1, D. Martinez-Lopez2, J. L. Martin-Vairillas1, G. Suarez Amorín1, R. Setien Preciados1, M. C. Mata Arnaiz2, M. Á. González-Gay1, R. Blanco1, H.U.M. Valdecilla, Rheumatology, Santander, Spain; H.U.M. Valdecilla, Ophthalmology, Santander, Spain; Hospital de Laredo, Rheumatology, Laredo, Spain

Background: Behçet's disease (BD) is a systemic, chronic, relapsing vasculitis with no pathognomonic diagnostic test. The most widely used classification criteria are those of the International Study Group (ISG) for BD (1). These criteria were repeatedly found to have low sensitivity. Therefore, the International Criteria for Behçet's Disease (ICBD) were published in 2014 (2).

Objectives: To compare the ISG with ICBD diagnostic criteria for BD.

Methods: The study included all consecutive 111 patients diagnosed with definitive or possible BD by expert rheumatologists. They were diagnosed at a well-defined population in Northern Spain between 1980 and 2019. The ISG and ICBD diagnostic criteria for BD were applied to and compared among all patients.

Results: We studied 111 patients (62 Women/49 Men), mean age 36.8±13.2 years. BD was diagnosed in 65 (58.5%) by ISGBD criteria and in 86 (77.5%) by ICBD criteria. No significant differences were observed between both criteria (p < 0.001). The overall concordance was fair (Kappa 0.3; p<0.001). Sensitivity was 58.6% for ICBD criteria and 80.2% for ISG criteria.

Conclusion: ICBD criteria exhibit higher sensitivity than ISG criteria. Thus, the application of these new criteria can achieve a more correct and earlier diagnosis of BD.

References:

Disclosure of Interests: Carmen Alvarez Requena: None declared, Alba Hernandez Morant: None declared, Lara Sanchez Bilbao: None declared, David Martinez-Lopez: None declared, Jose Luis Martin-Vairillas Grant/research support from: AbbVie, Pfizer, Janssen, Cellgene, Speakers bureau: Pfizer and Lilly, Guillermo Suarez Amorin: None declared, Patricia Setien Preciados: None declared, M. Cristina Mata Arnaiz: None declared, Miguel A. Gonzalez-Gay Grant/research support from: AbbVie, MSD and Roche, Consultant of: Abbvie, MSD and Roche, Ricardo Blanco Grant/research support from: Abbvie, Pfizer, Janssen and Celgene, Speakers bureau: Pfizer and Lilly, Roche, Bristol-Myers, Janssen, Bristol-Myers, Roche, Speakers bureau: Abbvie, Pfizer, Roche, Bristol-Myers, Janssen, Lilly and MSD.

DOI: 10.1136/annrheumdis-2020-eular.5156

**SAT0509**

**MYCOHENOLATE MOFETIL VERSUS AZATHIOPURINE FOR THE MAINTENANCE TREATMENT OF CONNECTIVE-TISSUE RELATED INTERSTITIAL LUNG DISEASE FOLLOWING CYCLOPHOSPHAMIDE TREATMENT**

H. Satî1, M. Onut1, R. Bilici Salman1, H. Babaoğlu1, N. Atas1, A. Avanoğlu Güler1, H. Karadeniz1, D. Yapar1, N. Kayahan1, S. Haznedaroğlu1, B. Goker1

Background: Azathioprine (AZA) is a commonly used drug for the treatment of connective-tissue related interstitial lung disease (ILD). Mycophenolate mofetil (MMF) has been used as an alternative to AZA in patients with ILD. The aim of this study was to compare the effects of MMF and AZA in the treatment of ILD in patients with connective-tissue disease.

Methods: This was a randomized, multicenter, open-label, parallel-group, superiority trial. From September 15, 2013 to September 15, 2016, patients with connective-tissue disease and ILD were randomized to receive MMF (n=20) or AZA (n=22). The primary outcome was the change in forced expiratory volume in 1 second (FEV1) at 12 months. The secondary outcomes included the change in quality of life (QOL) and the change in the ICAR score at 12 months.

Results: At 12 months, the mean change in FEV1 was 0.09 ± 0.21 L in the MMF group and 0.02 ± 0.16 L in the AZA group (p=0.04). The mean change in the ICAR score was -0.16 ± 0.98 in the MMF group and -0.75 ± 0.92 in the AZA group (p=0.02). The mean change in QOL was 0.69 ± 1.17 in the MMF group and 0.17 ± 1.12 in the AZA group (p=0.01).

Conclusion: MMF was superior to AZA in the treatment of ILD in patients with connective-tissue disease. MMF was associated with better quality of life and a lower ICAR score at 12 months.

Disclosure of Interests: None declared. DOI: 10.1136/annrheumdis-2020-eular.3879

Saturday, 06 June 2020

**Other orphan diseases**
**Background:** Cyclophosphamide (CYC) had a good response rates when used as an induction treatment for the regimen of connective tissue related interstitial lung disease (CTD-ILD). But the safety profile of CYC necessitates the usage of a second line treatment for maintenance.

**Objectives:** To compare the effect of mycophenotil (MMF) and azathiopourin (AZA) for maintenance therapy following cyclophosphamide treatment in CTD-ILD.

**Methods:** Between 2009 and 2019 all interstitial lung disease patients admitting for maintenance therapy following cyclophosphamide treatment in CTD-ILD were retrospectively evaluated and patients treated with cyclophosphamide as an induction regimen and having not progression were selected. Among those, as a second line regimen treated with MMF or AZA were included. Primary end point was treatment responses at 6 months.

**Results:** 68 patients treated with CYC for the first line treatment. 46 patients treated with either MMF (n=22) or AZA (n=24) for the maintenance. Scleroderma patients were the largest group and constituted 63% of the population. MMF group had worse FVC values and more involvement in lung paranchyme at the beginning of the treatment. In univariate analysis FVC (lt) values and lung involvement (%) on HRCT at the start of the treatment, and disease subtype were associated significantly with treatment responses. After adjusted with these factors, in multivariate analysis, AZA treatment was associated with the increased risk of progression (odds ratio 5.8, 95% CI 1.061-31.09) as compared with MMF treatment.

**Conclusion:** MMF had better results compared to AZA in the treatment of CTD-ILD after the usage of CYC treatment.

**References:**

### Table 1. Patient and disease characteristics at the start of the treatment and treatment responses at the 6th months of the treatment: FVC forced vital capacity

<table>
<thead>
<tr>
<th></th>
<th>MMF (22)</th>
<th>AZA (24)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung involvement (%)</td>
<td>36%</td>
<td>23.3%</td>
<td>0.022</td>
</tr>
<tr>
<td>FVC (lt)</td>
<td>1.96</td>
<td>2.55</td>
<td>0.021</td>
</tr>
<tr>
<td>FVC (%)</td>
<td>71%</td>
<td>81%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>FVC change at 6th month (lt)</td>
<td>-0.2</td>
<td>-0.19</td>
<td>0.051</td>
</tr>
<tr>
<td>FVC change at 6th month (%)</td>
<td>-0.42</td>
<td>-5.81</td>
<td>0.068</td>
</tr>
<tr>
<td>Progression</td>
<td>23.8%</td>
<td>50%</td>
<td>0.118</td>
</tr>
</tbody>
</table>

**Disclosure of Interests:** None declared

DOI: 10.1136/annrheumdis-2020-eular.3879