Results: After IL-6 stimulation, we found a lowered proportion of pSTAT3 in CD4+ memory T-cells of GCA patients and INF controls compared to HC's. In GCA patients, proportion of pSTAT3 in CD4+ memory T-cells was negatively associated with ESR at diagnosis (p=0.001, r=0.729). Considering the link between IL-6 and ESR, we stratified GCA patients according to high (>1.5pg/mL) and low (≤1.5pg/mL) serum IL-6 levels and found that the decrease in pSTAT3 in CD4+ memory T-cells was especially found in GCA patients with high serum IL-6 levels. Importantly, we found that GCA patients with low ESR and high pSTAT3 at the time of diagnosis significantly predicted long-term glucocorticoid requirement. Levels of pSTAT3 in patients with high serum IL-6 levels at diagnosis normalized after 1 year of treatment.

Conclusion: We demonstrate a relation between serum IL-6 levels and in vitro pSTAT3 expression in GCA. Importantly, our results suggest that pSTAT3 can be an important prognostic marker in GCA.

Acknowledgements: NIL.

Disclosure of Interests: None Declared.

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Table 1: Characteristics of patients

<table>
<thead>
<tr>
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<th>all patient</th>
<th>c-GCA</th>
<th>mimc</th>
<th>p-value</th>
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<tbody>
<tr>
<td>n</td>
<td>56</td>
<td>17</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>70.5</td>
<td>76.4</td>
<td>68.0</td>
<td>0.0213</td>
</tr>
<tr>
<td>Female (%)</td>
<td>67.9</td>
<td>76.5</td>
<td>64.1</td>
<td>0.3724</td>
</tr>
<tr>
<td>Cranial type (%)</td>
<td>30.4 (17/56)</td>
<td>100 (17/17)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>LV type (%)</td>
<td>13.7 (18/96)</td>
<td>0</td>
<td>15.4</td>
<td>0.3493</td>
</tr>
<tr>
<td>Occular lindisap (%)</td>
<td>17.8 (16/95)</td>
<td>29.4 (5/17)</td>
<td>12.8 (5/39)</td>
<td>0.136</td>
</tr>
<tr>
<td>PMR (%)</td>
<td>39.3 (32/86)</td>
<td>41.7 (17/41)</td>
<td>38.5 (15/39)</td>
<td>0.497</td>
</tr>
<tr>
<td>Jaw clausification (%)</td>
<td>17.9 (18/96)</td>
<td>47.3 (10/21)</td>
<td>5.1 (2/39)</td>
<td>0.0302</td>
</tr>
<tr>
<td>Headache (%)</td>
<td>60.7 (34/56)</td>
<td>76.5 (13/17)</td>
<td>53.8 (21/39)</td>
<td>0.484</td>
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<tr>
<td>Temporal (%)</td>
<td>48.2 (27/56)</td>
<td>64.7 (11/17)</td>
<td>41.0 (6/39)</td>
<td>0.0833</td>
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<tr>
<td>TemporalBI (%)</td>
<td>25.0 (14/56)</td>
<td>58.8 (10/17)</td>
<td>10.3 (4/39)</td>
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<td>Occipital (%)</td>
<td>33.9 (16/47)</td>
<td>35.6 (11/31)</td>
<td>75.6 (10/39)</td>
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<tr>
<td>max CRP (mg/dl)</td>
<td>6.92</td>
<td>7.9</td>
<td>6.92</td>
<td>0.63</td>
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<tr>
<td>max ESR (mm/hr)</td>
<td>86.6</td>
<td>17.8</td>
<td>85.9</td>
<td>0.3727</td>
</tr>
</tbody>
</table>

High IL-6

Low IL-6

Figure 1. a flowchart to diagnose c-GCA using v-US and imaging methods

Disclosure of Interests: Idil Esen: None declared, Maria Sandovici: None declared, Peter Heeringa: None declared, Annemieke Boots: None declared, Elisabeth Brouwer Consultant of: speaker/consulting fees from Roche, Yannick van Sleen: None declared, Wael Abdulahad: None declared.

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AB0719

IS AORTIC 18FDG-UPTAKE PREVALENCE UNDERESTIMATED? DATA FROM A LARGE HOSPITAL-BASED COHORT

Keywords: Epidemiology, Real-world evidence, Imaging

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Background: Giant cell arteritis (GCA) and Takayasu arteritis (TAK) are the most common rheumatologic cause of aortitis, but it is still debated whether clinically isolated aortitis (CIA) represents a variant of such conditions or a nosologically different entity. CIA real frequency may be underestimated since it may occur without specific clinical manifestations.

Objectives: The aim of the present study was to assess the frequency of vasculitic aortic uptake in patients who undergo 18FDG-PET for any kind of clinical reason.

Methods: One-thousand consecutive patients who underwent a whole-body 18FDG-PET at the Nuclear Medicine Department of Pisa Hospital for whatever clinical question since January 1st, 2019 were enrolled. All the 1000 reports were separately reviewed searching for abnormal uptake of the aorta, and for the doubtful cases the images were revised with an experienced specialist in nuclear medicine. Demographic data, clinical question and provenience was collected; in case of aortic uptake, Meller grade and other sites of abnormal uptake were registered.

Results: The cohort included 439 males and 561 females with a mean age of 62.75 years. The clinical suspicion was neoplasm in 875 cases, infectious process in 55, vasculitis in 25, fever of unknown origin (FUO) in 12, lymphadenopathy

Figure 1.
in 11, aneurysm in 4 and some other in 18. Thirteen patients (8 males and 5 females, mean age 59.69 years) showed positive aortic uptake. Among them, 6 patients underwent examination for a suspected vasculitis and 7 (33.8%) for other clinical conditions (e.g. neoplasm, FUO, polymyalgia rheumatica). Of all the patients who underwent 18FDG-PET for a suspected vasculitis, 7/25 (28%) showed abnormal vascular uptake. Moreover, among the 13 positive patients, three showed isolated aortic uptake while the others also presented other large vessel involvement. Interestingly, in none of the isolated aortitis vasculitis was the clinical question for the examination (arthritis, FUO, myocarditis).

Conclusion: To our knowledge, this is the first hospital-based study aimed to assess the prevalence of 18FDG-PET aortic uptake on such a large-scale cohort. According to our results, 18FDG-PET may result positive despite the absence of clinical vasculitis-related manifestations, especially in case of CIA. For this reason, the actual prevalence of aortic uptake may be underestimated and further wide-scale studies, which are currently ongoing, are expected to better identify the characteristics of CIA patients and their long-term course.

REFERENCES: NIL.

Acknowledgements: NIL.

Disclosure of Interests: None Declared.

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AB0720 DEVELOPMENT OF RESPONSE CRITERIA FOR GCA: AN SLR INFORMING AN INTERNATIONAL TASK FORCE

Keywords: Systematic review, Remission, Vasculitis

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Objectives: New response criteria in GCA.

Background: Giant cell arteritis (GCA) is the most common form of large vessel vasculitis. While remission and relapse are common primary endpoints in randomized clinical trials (RCTs), a definition of response is missing. We conducted a systematic literature review (SLR) to inform an international task force developing new response criteria in GCA.

Methods: An SLR was conducted using Ovid Medline, Embase, and Cochrane Central. The research question was formulated according to the PICO framework: the population included patients with GCA, any intervention or comparator was considered, and the outcomes addressed were active disease, improvement/response, remission, worsening, relapse, flare, or recurrence. RCTs and LOS with > 20 subjects and studies on qualitative research were included. Titles screening and full data extraction were performed by 2-3 reviewers. Discordant cases were discussed among reviewers until a final consensus; if not achieved, a methodologist was consulted. In case of multiple publications from the same trial and LOS, they were only considered if separate, pre-specified outcomes were reported.

Results: 10,593 studies were retrieved in the search, of which 116 were finally included. The descriptors used for the different outcomes’ definition were extracted and grouped into different categories (Figure 1). Active disease was reported in 11/1 (100%) RCTs and 20/104 (19%) LOS. Active disease was predominantly defined as a combination of clinical and laboratory component. The clinical component was described as the presence of symptoms of GCA while the laboratory component mainly included ESR and CRP. Remission was reported in 8/11 (73%) RCTs and 44/104 (42%) LOS. Remission was predominantly defined as a combination of clinical and laboratory components. The clinical component was described as the resolution of clinical signs/symptoms of GCA. The laboratory component (ESR/CRP) was only considered when associated with the resolution of signs/symptoms of GCA. Relapse was reported in 11/11 (100%) RCTs and 90/104 (87%) LOS. Relapse was predominantly defined as a combination of clinical, laboratory and treatment components. The clinical component was defined as the recurrence of clinical signs/symptoms of GCA. The laboratory component included the elevation of ESR and/or CRP. The treatment component (reinstitution or increase in glucocorticoids dose) was frequently considered as a criterion for relapse. No standardized definition of response was found across studies. Most RCTs used composite endpoints (including treatment tapering/discontinuation, maintenance of remission, and absence of relapse over a certain time frame) to assess the primary endpoint—response. Fourteen imaging studies were analyzed (10 prospective and 4 retrospective). PET-CT was the most studied imaging (n = 10), followed by ultrasound (n = 3). PET activity was evaluated thorough qualitative or semiquantitative scores. Ultrasound evaluated presence of disease activity based on the intimal wall thickness/halo sign.

Conclusion: The results of this SLR showed that an internationally accepted definition of response in GCA is elusive so far. RCTs and LOS mainly defined the extremes of the spectrum of GCA disease activity (remission and relapse) as primary endpoints. The descriptors identified will be incorporated in future phases of an international task force for the development of response criteria for GCA.

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AB0721 CHARACTERISTICS AND LONG-TERM OUTCOME OF DISEASE PHENOTYPES IN TAKAYASU ARTERITIS WITH SUPRA-AORTIC INVOLVEMENT

Keywords: Vasculitis, Cardiovascular disease

Y. Sun1, L. Wang1, H. Chen1, X. Dai1, L. Ma1, X. Kong1, L. Jiang1.

Objectives: To explore the characteristics and long-term outcomes in different phenotypes of the East China Takayasu arteritis (ECTA) cohort with supra-aortic involvement.

Methods: Patients with supra-aortic involvement were enrolled from the ongoing ECTA cohort from July 2009 to December 2021 and followed up until June 30, 2022. Patients were assigned to four phenotypes: asymptomatic (AS), constitutional symptoms (CSs), vascular-associated symptoms (VASs), and neurological severe ischemic events (SEIs). Pattern differences in clinical features were analyzed, and the cumulative incidence of severe adverse events (SAEs) was evaluated. We performed multiple logistic regression analysis to compare the phenotypes.