defined as “positive” since the uptake was higher than liver, and twelve/thirty (52.2%) were defined as “negative” since the uptake was lower than liver, regardless of SUVs and clinical manifestations. A semi-quantitative analysis assessed whether the values of the SUVmax BM/liver were higher than the cut-off of 2.09 in “positive” PET/CT and lower in the “negative” ones and if the clinical manifestations were present or absent in agreement with the evaluation of SUVs for each patient. BM was found to be active (SUVmax ratio > 2.09) in 7 out of 11 patients when the PET/MR was defined “positive,” while only in 1 case out of 12 BM SUVmax was >2.09 when the exam was “negative.” Clinical manifestations were present in 10 out of 11 AOSD with a “positive” scan and in 7 out of 11 with both a “positive” scan and a SUV max BM/liver >2.09. Clinical manifestations were present in 1 out of 12 patients with no “negative” scan, while in 10 out of 12 cases with both a negative scan and a SUV max BM/liver <2.09 were absent. Six patients repeated PET/MR during follow-up. The values of the SUVmax BM/liver significantly decreased after anti IL-1β treatment with anakinra. In two cases in which anakinra was deferred, the BM SUVmax values exceeded the cut-off of 2.09 despite the patients did not complain any symptom or inflammation markers increase.

**Conclusion:** PET-FDG-PET/CT could be able to evaluate the disease activity in AOSD when clinical manifestations and serum markers are not sufficient to establish it. The uptake on BM seems quite sensitive in pointing out the disease severity and in assessing the response to anti IL-1β therapy. PET/MR is an accurate and repeatable method, however further studies are required to validate its applicability in routine clinical practice.

**Disclosure of Interests:** None declared

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**Table 1**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pathological findings (%)</th>
<th>Interobserver agreement (%)</th>
<th>Interobserver Reliability Kappa Coefficient</th>
<th>95% Confidence Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>US positive for GCA</td>
<td>59%</td>
<td>96%</td>
<td>0.93</td>
<td>0.85-0.99</td>
</tr>
<tr>
<td>US positive for cGCA</td>
<td>66/112</td>
<td>95%</td>
<td>0.89</td>
<td>0.81-0.98</td>
</tr>
<tr>
<td>US positive for Lv-GCA</td>
<td>19%</td>
<td>96%</td>
<td>0.89</td>
<td>0.78-0.99</td>
</tr>
<tr>
<td>Halo sign TA, all segments</td>
<td>51%</td>
<td>96%</td>
<td>0.91</td>
<td>0.83-0.99</td>
</tr>
<tr>
<td>Compression sign TA, all</td>
<td>48%</td>
<td>94%</td>
<td>0.89</td>
<td>0.80-0.98</td>
</tr>
<tr>
<td>Compression sign FA</td>
<td>20%</td>
<td>96%</td>
<td>0.87</td>
<td>0.75-0.98</td>
</tr>
<tr>
<td>Halo sign AA</td>
<td>16%</td>
<td>96%</td>
<td>0.86</td>
<td>0.73-0.99</td>
</tr>
<tr>
<td>Halo sign AC</td>
<td>18%</td>
<td>97%</td>
<td>0.91</td>
<td>0.81-1.00</td>
</tr>
<tr>
<td>Halo sign AC</td>
<td>4%</td>
<td>100%</td>
<td>1.00</td>
<td>1.00-1.00</td>
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</tbody>
</table>

**References:**


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**SAT0559**

**THE IMPACT OF A STANDARDIZED TRAINING PROGRAM FOR IMPROVING THE RELIABILITY AND AGREEMENT – A STUDY OF VASCULAR ULTRASOUND FOR DIAGNOSING GIANT CELL ARTERITIS IN DENMARK**

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**Background:** Due to a high level of evidence of good test performance, accessibility, minimal invasiveness, low cost, and good overall performance, EULAR recommends ultrasound (US) of the temporal and axillary arteries as primary diagnostic imaging test in patients suspected of Giant Cell Arteritis (GCA) (1). Despite the growing body of evidence supporting the utility of US in GCA, standardized training programs and their impact on reliability are lacking (1). In TABUL study (2), only the US study published to date using a standardised US training program, the interobserver agreement by 12 different sonographers was only moderate, illustrating the challenges presented in the education for US in GCA.

**Objectives:** To evaluate the impact of a standardized training program including equipment adjustment on the agreement and reliability of US in the diagnosis of GCA for experienced musculoskeletal (MSK) ultrasonographers, without previous experience on vascular US.

**Methods:** Five rheumatologists with long-standing experience in MSK US were trained by a standardized training program including equipment adjustment (Box 1) prior to a prospective, non-interventional observational study in patients suspected having GCA. The rheumatologist performing the US subsequently trained by a standardized training program including equipment adjustment. Results: In three Danish centers 112 patients were included, 59% females, mean age 72.4 (SD) 7.9 years and median CRP 55 (IQR 21-100)mg/l. Median duration of prednisolone treatment prior to US examination was 0 (IQR 0 to 1) days. 92% of the patients reported a newly emerged localized headache. The reliability between the performing sonographer and the US expert for the overall GCA diagnosis, as for the diagnosis of cranial (c-GCA) and large- and medium-vessel (LV-GCA) was excellent. In addition, excellent reliability was also found for the US examination of all examined arteries (Table 1). According to the US expert, vasculitis changes were found in 66 patients with the pathological findings distributed as presented in table 1.

**References:**


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**SAT0559**

**INCREASED FREQUENCY OF INTER- AND SUBMETATARSAL BURSITIS AND MORTON’S NEUROMA IN RHEUMATOID ARTHRITIS: RESULTS OF A LARGE CASE-CONTROLLED MRI STUDY OF FOREFEET IN PATIENTS WITH EARLY ARTHRITIS AND HEALTHY CONTROLS**

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**Background:** The forefoot is a preferential location for tendon and joint inflammation in rheumatoid arthritis (RA). Some imaging studies suggested that intermetatarsal and submetatarsal pathology (such as bursitis and Morton’s neuroma) are also involved in RA, but these studies were small and their association was not thoroughly explored.

**Objectives:** To determine whether intermetatarsal bursitis (IBM), Morton’s neuroma (MN) and submetatarsal bursitis (SMB) occur more often in early RA, compared to patients with other early arthritides and healthy controls. Contrast-enhancement in the subcuts that has been described as diffuse submetatarsal alterations (DSMA) were also included.

**Methods:** In this cross-sectional cohort-study, consecutive patients with RA, other arthritides and healthy controls underwent MRI of unilateral forefoot. Two readers, a trained PhD-student an experienced MSK-radiologist, scored IBM, MN, SMB and DSMA in consensus, and measured transverse and dorsoplantar

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