All patients underwent baseline magnetic resonance angiography (MRA) and a follow-up MRA at least one year after baseline per a standardized imaging protocol. The presence of angiographic lesions, defined as stenosis, occlusion, or aneurysm, was evaluated by visual inspection by a single reader who was blinded to clinical status. Angiographic lesions were evaluated in 4 segments of the aorta and in 13 branch arteries. On follow up angiography, the development of new lesions was recorded, and existing lesions were characterized as improved, worsened, or unchanged.

**Results:** 782 arterial territories were evaluated from 46 patients with LVV (TAK=28; GCA=18). Baseline characteristics were as follows: Age [TAK=24.8 years (18.6-34.9), GCA=64.8 years (57.8-73.9)]. Female gender [TAK=21 patients (78%), GCA=16 patients (64%)]. Disease duration [TAK=2.3 years (0.6-4.9), GCA 1.2 years (0.4-2.9)], Active clinical disease [TAK=12 patients (44%), GCA 12 patients (63%)]. The median time from initial MRA to follow up MRA was 2.4 years (1.5-3.1) for GCA and 16 years (1.3-3.3) for TAK.

There were 159 territories affected at the baseline visit in 41 patients [TAK: 108 territories in 26 patients, GCA: 51 territories in 15 patients]. The development of new territory involvement was infrequent and only occurred in patients with TAK (8 new lesions out of 352 baseline unaffected territories (2.3%) in 5 patients).

At follow up, existing arterial lesions improved in 25 (15.7%) territories, worsened in 6 (3.8%) territories, and stayed the same in 128 (80.5%) territories. There were no significant differences in angiographic progression of disease between the two diseases; improved - TAK 19 (176%), GCA 6 (11.8%); worsened - TAK 5 (4.6%), GCA 1 (1.9%); unchanged - TAK 84 (77.8%), GCA 44 (86.3%). Change in the branch arteries was more dynamic than change in the aorta (Figure). Improvement in angiographic disease was observed in 8 (17%) patients (TAK=6, GCA=2). Worsening of disease was seen in 3 (7%) patients (TAK=2, GCA=1). In 5 (11%) patients (TAK=4, GCA=0), there were areas of improvement and other areas of worsening disease within the same patient.

**Conclusion:** Dynamic change in arterial lesions is observed in patients with TAK and GCA. Improvement and worsening of arterial lesions can be observed over time, even within the same patient. This observation suggests that both local factors at the level of the artery and systemic factors (e.g. treatment response) are likely associated with angiographic progression. The development of new angiographic lesions was infrequent, and only occurred in patients with TAK. These data may inform future guideline recommendations for angiographic monitoring in LVV.

**References:** N/A

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**SAT0253**

**ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODIES PREDATE SYMPTOM ONSET OF ANCA-ASSOCIATED VASculitis. A CASE-CONTROL STUDY**

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**Background:** Presence of anti-neutrophil cytoplasmic autoantibodies (ANCA) is important for the diagnosis of ANCA-associated vasculitis (AAV) and reflects on-going immune processes. The timing of the antibody development and its contribution to disease is not well established.

**Objectives:** To investigate the presence of proteinase 3 (PR3)- and myeloperoxidase (MPO)-ANCA in blood samples collected from healthy individuals who subsequently developed AAV.

**Methods:** The Swedish National Patient Register of inpatient care and the Swedish Cause of Death Register were used to identify individuals assigned ICD codes for AAV (1) in the discharge summary or cause of death, respectively. The resulted cohort was then linked to the registers of 4 different biobanks to identify those with available predating blood samples. Diagnoses of AAV were confirmed and time point for onset of symptoms was identified by reviewing all available case records (1). ANCA were classified as granulomatosis with polyangiitis (GPA), 14 as microscopic polyangiitis (MPA), and 4 as eosinophilic GPA (EGPA). The 86 cases (36 males, 50 females) had a mean (SD) age of 51.9 (16.9) years at sampling, with ≥1 sample (26% plasma, 74% serum samples). The sampling time point before onset of symptoms was mean (SD): 4.4 (3.1) years. Serum and plasma control samples (n=198; 82 males, 116 females; mean age: SD; 52.0 (16.6) years) were identified and matched for sex, age and date of sampling. The samples were first screened for ANCA using high sensitive ELISA (ORGANTEC diagnostika, Germany) and samples close to or above cut-off level were further analysed for capture PR3- and capture MPO-ANCA (ELISA; SVAR Life Science).
SAT0254

PROSPECTIVE ANALYSIS OF THE PREVALENCE OF GIANT CELL ARTERITIS IN CONSECUTIVE PATIENTS WITH POLYMYALGIA RHEUMATICA

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Background: Giant cell arteritis (GCA) is the most common form of systemic vasculitis affecting people aged 50 years and older.1 Although it is known that GCA often coexists with polymyalgia rheumatica (PMR),2 prevalence of GCA in consecutive patients with PMR has not been investigated.

Objectives: To prospectively examine the prevalence of GCA in consecutive patients with PMR by vascular ultrasound (US).

Methods: Patients with newly diagnosed PMR fulfilling the ACR/EULAR classification criteria for PMR were included. Vascular US examination of the extracranial arteries typically involved in GCA, such as axillary arteries, vertebral arteries, common carotid arteries, superficial temporal arteries with both frontal and parietal branches, occipital arteries, facial arteries and the central retinal arteries was performed in all PMR patients. Diagnosis of GCA was made, if intima-media thickness (IMT) was above respective cut-off values.

Results: In total, 163 patients with PMR underwent vascular US. Twenty-three patients (46%) had PMR without GCA (PMR-group). The mean age in this group was 74 years (SD ± 9) with ten (37%) females respectively.

In conclusion, the results of this preliminary study reveal that the relapse rate among patients with large vessel vasculitis is known relapsing diseases. However, the rate of relapses has been seldom addressed and there are only few data on relapse predictors.

Objectives: We conducted the present study to investigate the prevalence of relapses in the first year after diagnosis and the overall relapse among patients with large vessel vasculitis. Furthermore, we aimed to identify if the systemic inflammatory response (SIR) is a possible predictor for relapse among patients with large cell vasculitis.

Methods: The systemic inflammatory response (SIR) has been described as a potential clinical and serological score predicting the risk for relapses.1 SIR estimates the systemic inflammatory activity at the time point of first diagnosis.1 It was defined as follows: Temperature >38°C, weight loss >4kg, Haemoglobin <11g/dl and erythrocyte sedimentation rate >85mm/h. For each of the above-mentioned criteria one point was attributed, leading to a range from 0 to 4 points. Patients with 3 to 4 points were considered having a highly inflammatory response and patients with an SIR ≤2 were considered having a low inflammatory response and thus a lower risk for relapses. Relapses were defined as reappearance of disease-related symptoms requiring treatment adjustment. The study cohort included 75 patients with large vessel vasculitis (Giant Cell Vasculitis, Takayasu Vasculitis, inflammatory non-infections Aortitis), longitudinally followed by the authors over a mean period of 5.2 ± 3.3 years (range 1-14 yr).

Results: The study-cohort includes 71 patients with a mean age at diagnosis of 63.5 (16 – 85) years. Almost three quarters (73%) of the patients were women. Most of the patients were suffering from GCA (73.2%), followed by Takayasu arteritis (16.9%) and inflammatory non-infections Aortitis (9.8%). 38 patients (53.5%) relapsed at least once during the follow up, and 17 patients had two or more relapses. The vast majority of relapses (86.8%) were observed within the first year following diagnosis. Most of the patients, 54 patients (76%), were considered having a low inflammatory response (SIR <2). The relapse rate in this group was 59.2%. On the other hand, there were 17 patients having an SIR higher or equal to 3 points. The relapse rate in this group was 33%.

Conclusion: In conclusion, the results of this preliminary study reveal that the relapse rate among patients with large vessel vasculitis is high. The SRI appears to be an inadequate predictor for relapse in this cohort.