in 3/5 patients with SVCS and 1/1 patient with vascular involvement without a SVCS and 4/6 healthy controls.

Abstract THU0464 – Table 1. Demographic characteristics and variables associated with obstructive sleep apnea

	Group 1 (BS patients with SVCS) (n=28)	Group 2 (BS patients with vascular involvement without SVCS) (n=80)	Group 3 (BS patients with no vascular involvement) (n=59)	Group 4 (Healthy controls) (n=80)	p value
Age, mean ±SD, years	44.3±9.7	42.1±7.8	41.9±5.9	42.7±9.7	0.051
Disease duration, mean±SD, years	18.7±9.4	14.6±7.7	12.5±6.5		0.001
Hypertension, n (%)	4 (14.3)	6 (7.5)	2 (3.4)	4 (5)	NS
BMI, mean ±SD	26.8±4.7	26.4±3.9	26.2±3.3	27.0±3.5	NS
High risk for OSA, n (%)	16 (57.1)	12 (15)	5 (8.5)	9 (11.3)	<0001

Conclusions: This study shows that BS patients with a history of VCSS are at high risk of OSA. This is probably due to the external pressure of the significant venous collaterals on the upper airways.

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THU0465 A LONGITUDINAL STUDY OF NEUTROPHIL PHENOTYPE CHANGES IN GIANT CELL ARTERITIS

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Background: Neutrophils with differential surface protein expression were recently implicated in pathogenesis of Giant Cell Arteritis (GCA)¹. However, data are lacking with regard to treatment-naïve GCA and their long-term follow-up.

Objectives: To determine the expression of I-selectin (CD62L) and integrin α M (CD11b) on CD16⁺ neutrophils in peripheral blood of newly diagnosed, treatment-naïve GCA cases, at the time of diagnosis (time 0) and during follow-up - at week 1, 4, 12, 24 and 48. In parallel, we aimed to measure also sera levels of serum amyloid A (SAA) and interleukin-6 (IL-6).

Methods: Peripheral blood from 33 treatment-naïve GCA patients and 16 healthy blood donors (HBD) was stained, lysed, fixed and analysed by flow cytometry (Miltenyi). SAA and IL-6 were measured by nephelometry and ELISA, respectively. 3/33 GCA patients experienced relapse and were analysed separately during follow-up, at the time of relapse and 12 weeks after relapse. At the time of diagnosis, all patients received steroid treatment and therapy tapering started after 4 weeks. At week 12, some of the patients (14/22) received leflunomide, in addition to steroid therapy.

Results: Expression of CD62L, but not CD11b, was significantly higher on CD16⁺ neutrophils in treatment-naïve GCA patients (median; IQR: 72.5; 56.2–100.7), as compared to HBD (55.9; 44.5–70.6, $p=0.017$). Longitudinally, the expression of CD62L significantly decreased in GCA patients from day 0 to week 4 ($p=0.005$). At week 12 there was an elevation in CD62L which escalated also at week 24. Patients receiving steroids only showed a marked increase at week 48, while patients receiving also leflunomide exhibited a decrease (Fig 1). Expression of CD11b declined from day 0 to week 4, but substantially increased throughout weeks 12, 24 and 48, regardless of therapy used. SAA and IL-6 declined sharply from day 0 to week 1 and 4, with gradual elevation of both at week 12. There was a decline in SAA levels observed in all patients at week 24, while IL-6 increased in patients receiving only steroids. These patients exhibited further elevation of both markers at week 48, while patients receiving steroids, in combination with leflunomide, showed a decrease. In 2/3 patients who experienced a relapse, we could observe an increase in the expression of CD62L at the time of relapse, which was found to be decreased again 12 weeks later. A similar trend was observed for IL-6.

Conclusions: Neutrophil CD62L could represent a good surface marker for detection of relapse in GCA. A distinct dichotomy was found for CD62L, as well as SAA and IL-6 in GCA during long term follow-up, with the combination of steroids with leflunomide showing more optimal results.

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THU0466 SEXUAL DYSFUNCTION AND DEPRESSION IN BEHCET'S DISEASE – ARE THERE DIFFERENCES REGARDING PATIENT'S ORIGIN

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Background: Behcet's disease (BD) is a systemic vasculitis of veins and arteries characterised by oral and genital ulcers (aphthae), skin lesions and uveitis. BD is more common in Middle Eastern countries and Asia but also occurs in Caucasian people.

Objectives: Aim of this study was to evaluate the prevalence of sexual dysfunction (SD) in patients with BD as well as analysing differences between patients from different origins. Additionally we investigated the prevalence of depression in both ethnic groups.

Methods: This prospective, monocentric study included 106 patients with BD. The International Index of Erectile Function (IIEF) and the Female Sexual Function Index (FSFI) were used for assessing sexual dysfunction and the Beck Depression Inventory (BDI) was used for depression assessment.

Results: The mean age of our group was 40.5 years. Half of the patients had Middle Eastern and half Caucasian origin. SD was found in 24.5% of all subjects. Only 6.9% of the male patient's group showed signs of SD, while half of the women's group was suffering from SD ($p<0.001$). The prevalence for SD was significantly higher in women with Middle Eastern origin compared to women with Caucasian origin (75% vs. 33.3%, $p=0.024$). Genital ulcers affected 73.6% of all patients. Depression was found in 36.7% of all subjects. Both SD and depression correlated positively in males ($p=0.017$) and females ($p=0.013$).

Conclusions: SD and depression are very common problems in BD and should be addressed by the treating physician. Both manifestations are intensifying each other.

Disclosure of Interest: None declared

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THU0467 EFFICACY AND PATENCY OF REVASCULARISATION IN PATIENTS WITH THROMBOANGIITIS OBLITERANS (BUERGER'S DISEASE)

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Background: The cornerstone of therapy in thromboangiitis obliterans (TAO) is complete abstinence from tobacco. In addition to discontinuation of cigarette smoking, very few pharmacological and surgical options of controversial efficacy are available to date. TAO is associated with a high amputation rate because of tobacco continuation, medical therapy failure, and desert foot with no revascularisation option. Endovascular or bypass revascularisation patency and efficacy are poorly described in the literature.

Objectives: To describe the results of the French National Reference Centre on TAO on revascularisation modalities, their patency and efficacy.

Methods: Among the 198 patients followed in our centre, we retrieved data from 19 patients for who a revascularisation procedure has been attempted. Patency was assessed on angioCT scan and Duplex ultrasounds performed during follow-up. Efficacy was assessed according to clinicians in charge of the patient, and if

an amputation had been performed or not despite a primary successful procedure.

Results: In this cohort of 19 patients, 16 were male (84%), all were tobacco active users, and 21% cannabis users. Median follow-up was 19.9 months [11.0–36.9]. Iloprost infusion had been tested for 84.2% of the patients before revascularisation, and 63.2% had a dihydropyridine, 73.3% a statin and 100% at least aspirin. Endovascular procedure was exclusive for 14 patients, and bypass surgery for 1 patient. Four patients had combined procedures. Globally, 44 procedures including 7 bypasses (15.9%) and 37 endovascular surgeries (84.1%), due to multiple procedures for some patients. Primary patency of endovascular procedures was 89.4% and their patency duration was 221 ± 173 days. For bypass surgery, the patency duration was higher 827 ± 408 days ($p=0.273$). Looking at the territory, aorto-iliac revascularizations gave better results on long term 1830 days followed by upper limb 751 ± 402 days, femoro-popliteal procedures 347 ± 196 days and finally infra-popliteal ones with 178 ± 134 days.

Stability or improvement was observed after 52.3% of the revascularizations. Among the failures, 21.2% were associated with a minor amputation, and 11.3% with a major amputation. No predicting factors of failure could have been determined.

Conclusions: We report the largest series of revascularization in TAO. As expected, proximal artery revascularisation of lower limbs were associated with a higher and a longer patency rate than femoro-popliteal procedures and even more than infra-popliteal revascularisations. Surprisingly, upper limb revascularisation had a better outcome than for lower limbs. Efficacy of revascularizations are difficult to assess because such procedures are often proposed as a salvage option. However, it is worth to note that more than 50% of the patients had a benefit from the revascularisation.

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THU0468

SERUM ANGIOGENESIS BIOMARKERS PREDICT DISEASE OUTCOME IN GIANT CELL ARTERITIS

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Background: Giant cell arteritis (GCA) is characterised by inflammation of the medium and large vessels. Two forms of GCA are described, C(cranial)-GCA and LV(large vessel)-GCA, which can be present either separately or co-exist in a patient. Clinical features, erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) levels are used for disease diagnosis and monitoring, but are not disease specific. Relapses are common during and after treatment, therefore new biomarkers are needed for diagnosis and disease course prediction.

Objectives: As the majority of infiltrating cells in the vessels of GCA patients are macrophages the aim of this project was to identify and compare levels of macrophage products in the serum of GCA patients as potential biomarkers.

Methods: Forty-one newly diagnosed GCA patients (temporal artery biopsy proven C-GCA and FDG-PET scan-positive LV-GCA) were recruited before start of glucocorticoids. Disease course was monitored and time to glucocorticoid treatment free remission was documented. Thirty age- and sex matched healthy controls (HCs) and 13 infection controls (bladder or lung infection) were also included. Serum concentrations of interleukin (IL)–6, serum amyloid A (SAA), soluble CD163 (sCD163), calprotectin, YKL-40 (human cartilage glycoprotein-39), vascular endothelial growth factor (VEGF), and angiotensin-1 and 2 were determined by ELISA or Luminex assay.

Results: IL-6, SAA, sCD163, calprotectin, YKL-40, VEGF and angiotensin-2 levels are increased in GCA and infection controls compared to HCs. IL-6 levels correlated strongly with CRP, ESR and SAA, all markers of the Acute Phase Response (APR), in GCA. Interestingly, YKL-40, angiotensin-2 and calprotectin levels showed only weak or no correlation with APR biomarkers, while they were strongly correlated with the APR in infection controls. Monocytes in peripheral blood correlated with APR biomarkers in GCA, whereas neutrophils correlated with the APR in infection controls. Patients with overlapping C-GCA and LV-GCA displayed a significantly stronger APR than patients with C-GCA or LV-GCA alone. High VEGF and angiotensin-1, but low angiotensin-2 levels at baseline predicted a shorter time to treatment free remission. This is in contrast to markers of the APR, which did not significantly predict time to treatment free remission.

Conclusions: In this study, we show that markers of angiogenesis are better predictors of disease outcome than APR biomarkers. It appears that levels of calprotectin, YKL40 and angiotensin-2 are increased through other than APR pathways during GCA compared to acute infection. Monocytes rather than neutrophils appear to drive the APR in GCA. This response is stronger in GCA patients with both cranial and systemic symptoms.

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THURSDAY, 14 JUNE 2018

Osteoporosis

THU0469

QUANTIFYING THE TREATMENT WITH GLUCOCORTICOID AS A RISK FACTOR FOR THE OCCURRENCE OF OSTEOPOROSIS AND FRACTURES IN PATIENTS WITH RA

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Background: Rheumatoid arthritis (RA) is associated with increased systemic bone loss, leading to a high risk for fragility fractures. The etiology of increased fracture risk in RA is multifactorial and comprises next to general risk factors also RA-specific risks, most prominently chronic inflammation, seropositivity and glucocorticoid (GC) use¹. Yet, there is evidence that GCs may, by adequately suppressing systemic inflammation, also have a positive effect on BMD and fracture risk in RA².

Objectives: The purpose of this study was to investigate the prevalence of osteoporosis and fragility fractures in RA patients and to characterise, among other risk factors, the role of GC dose, cumulative dose (GCCD) and duration as well DMARD treatment on bone health.

Methods: Rh-GIOP is an ongoing prospective observational study collecting and analysing disease- and bone-related data from patients with chronic rheumatic diseases treated with GCs. In this cross-sectional analysis, we evaluated the initial visit of 238 patients with RA. Descriptive analyses were performed, with values displayed as mean/standard deviation and median/range for continuous variables. For subgroup analyses, non-parametric tests were used.

Results: Of 238 patients with RA (79.4% women, mean age: 63.6 ± 12.5 years), 155 were seropositive and 83 seronegative. Seronegative patients were numerically older (66.8 ± 12.1 vs 61.8 ± 12.1 years) and more often in menopause (78.3% vs 61.8%, ns) than seropositive, while the latter had longer disease duration (median: 4.0 vs 11.0 years, $p=0.03$). Overall, osteoporotic BMD was more frequent at femoral sites, with 21% of patients having T-Scores < -2.5 . Osteoporotic BMD was more common in seronegative patients (ns), although no difference in the frequency of fragility fractures ($n=18/24.1\%$ vs $n=28/23.2\%$) was found.

All patients received GCs (mean dose: 5.0 ± 6.8 mg, mean GCCD 15.1 ± 19.3 g, mean duration 7.7 ± 8.2 years) with seropositive patients having numerically higher GCCD, longer duration of GC therapy and more often current GC doses above >10 g/day. Biological DMARDs were more frequently used in seropositive patients ($n=20/24.1\%$ vs $n=67/43.2\%$, $p=0.02$). Anti-osteoporotic therapies between both groups did not differ.

Neither current GC doses nor GCCD nor DMARD therapy had a statistically significant and independent effect on BMD or fragility fractures in either RA group.

Conclusions: Osteoporosis and fragility fractures remain a challenge in the management of RA, being determined by multiple interacting factors. Our data confirm that GCs may not *per se* increase fracture risk and decrease BMD in RA but rather, that optimal management of disease activity with or without GCs may be beneficial to bone health. Interestingly however, despite higher cumulative GC doses and duration, seropositive RA patients did not have lower BMD or higher prevalence of fragility fractures compared to seronegative patients. Further prospective data is warranted to better characterise the role of GCs and DMARDs in regard to osteoporosis and fracture risk in RA patients.

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