improved dramatically by angiotensin-converting enzyme inhibitor therapy, but SRC still has a poor prognosis.³ Factors predictive of SRC include early diffuse skin involvement, rapid skin thickening, anti-RNA polymerase (RNAP) III antibodies, arthralgia/synovitis, and high glucocorticoid dosage.⁴ Although classical data have implicated pericardial effusion as another predictive factor of SRC,⁵ its role in SRC has not been well established.

Objectives: To clarify the clinical impact of pericardial effusion as a predictor of SRC.

Methods: Ninety-five patients diagnosed with SSc at our hospital between January 2003 and December 2017 were enrolled in the study. They were divided into a pericardial effusion group (n=21) and non-pericardial effusion group (n=74), and their clinical features retrospectively compared. Cox-regression analysis was performed to identify factors predictive of SRC.

Results: The patients comprised 14 men and 81 women with an average age of 57.4 years (range, 14 to 82) and the mean observation period was 65 months (range, 1 to 125). Pericardial effusion was detected in 21 of 95 (22.1%) cases. In the pericardial effusion group, SRC, modified Rodnan's total skin thickness score (mRSS), C-reactive protein, maximum glucocorticoid dose, proteinuria, finger apex ulcers, and interstitial pneumonia were significantly more prevalent compared to the non-pericardial effusion group. Cox regression analysis indicated that pericardial effusion (hazard ratio; HR 11.8 [95% CI 1.6–84.6], p=0.014) and anti-RNAP III antibodies (HR 11.1 [95% CI 2.0–59.6], p=0.005) were independent risk factors for SRC, while mRSS (HR 1.0 [95% CI 0.9–1.1], p=0.12), finger apex ulcers (HR 0.57 [95% CI 0.073–4.2], p=0.57), max glucocorticoid dose (HR 1.0 [95% CI 0.9–1.0, p=0.89]), and interstitial pneumonia (HR 0.9 [95% CI 0.2–3.7], p=0.96) were not. In the Kaplan-Meier method, SRC was significantly increased in the pericardial effusion group compared to non-pericardial effusion group (p<0.0001 by log rank test).

Conclusions: Pericardial effusion is another independent factor predictive of SRC in addition to anti-RNAP III antibodies.

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Vasculitis

THU0433 THE PREVALENCE OF SPONDYLOARTHRITIS IN PATIENTS WITH TAKAYASU ARTERITIS

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Background: Takayasu arteritis (TA) is characterised by inflammation of large arteries causing stenosis, occlusion, dilatation and/or aneurysm of affected vessels. TA is most commonly seen in younger women between 20–30 ages. Etiopathogenesis of TA is largely unknown although evidence suggest complex interplay between environmental and genetic factors such as HLA (human leukocyte antigen) groups. The coexistence of TA with spondyloarthropathies (SPA) has been reported in limited case series, raising hypotheses about shared pathogenetic mechanisms.

Objectives: To determine prevalence of spondyloarthropathy in patients with TA.

Methods: Detailed clinical and demographic features of TA patients were recorded and all were screened for the presence of SPA following recommendations of (ASAS). Patients were questioned for inflammatory back pain, enthesitis, uveitis, inflammatory bowel disease, peripheral arthritis, and investigated accordingly with HLA-B27, plain X-rays of pelvis and sacroiliac magnetic resonance imaging. Radiographic spondyloarthritis was reported in case of bilateral grade ≥2 or unilateral grade ≥3 sacroiliitis.

Results: There were 65 patients (61 female, 4 male) in the cohort. Mean age was 43±13 years and age at the diagnosis of TA was 35±13 years. Inflammatory bowel disease, psoriasis and psoriatic arthritis were observed in four, three and one patients. Chronic axial pain was reported by 26 (40%) patients but inflammatory back pain was evident in 13 (20%) patients. Chronic arthritis was observed in 4 patients. HLA-B27 was positive in three patients. Six patients were diagnosed as radiographic SPA and 3 were diagnosed as non-radiographic SPA. In sum nine patients were diagnosed as SPA (14.2%).

Conclusions: Our study demonstrated that SPA is common in patients with Takayasu arteritis suggesting shared pathogenetic mechanisms.

Disclosure of Interest: None declared

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THU0434 PREDICTORS OF LONG-TERM GLUCOCORTICOID THERAPY IN POLYMYALGIA RHEUMATICA: DISCONTINUATION IS MORE COMMON FOR PATIENTS TREATED WITH AMINOBISPHOSPHONATES

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Background: Glucocorticoids (GCs) are the cornerstone of polymyalgia rheumatica (PMR) therapy. Although guidelines for PMR generally recommend tapering GCs after 12–24 months, most patients are unable to discontinue GCs within the recommended time-frame. However, glucocorticoid-related adverse events can occur in up to 85% of treated cases. Patients treated with GCs should receive aminobisphosphonates (N-BPs) for the prevention of GCs-induced osteoporosis.

Objectives: In this retrospective observational study, we aimed to establish: 1) the proportion of patients with PMR who do not discontinue GCs, and 2) whether the use of N-BPs may be associated with a discontinuation of GCs.

Methods: Data were collected from electronic medical records of Rheumatology Unit at Azienda Ospedaliera Universitaria Integrata (AOUI) Verona, Italy. Patients were eligible for inclusion if they fulfilled the 2012 EULAR/ACR classification criteria for PMR. The following exclusion criteria were applied: a history of large vessel vasculitis and other diagnoses that could explain the symptoms. The main outcome was the long-term use of GCs, defined as a patient still receiving active treatment with GCs at the last evaluation available. Putative predictors included age, sex, dosage of prednisone, inflammatory markers (ESR and CRP), haemoglobin, peripheral joint involvement, use of DMARDs, number of relapses, osteoporosis and use of N-BPs. Univariable and multivariable Cox regression analyses were used to examine the association between several predictors and the outcome.

Results: 385/467 patients screened were eligible (median age 72 years [IQR 66–78], 64% females). Peripheral joint involvement was detected in 29%; 22% received DMARDs. The initial prednisone dose (median daily dose 20 mg^{13–25}) was correlated with age, haemoglobin, CRP and ESR. More than 60% of patients were treated with N-BPs, of whom only 26% were diagnosed with osteoporosis. The median follow up time was 38 months [IQR 9–57]. Disease relapse occurred in 307/467 patients (80%). GCs were discontinued in 47% after a median time of 20 months [IQR 14–27], but were restarted in 39%. At the last evaluation, 276 patients (72%) were still receiving active treatment with GCs (median daily dose 5 mg [IQR 0–8]). Multiple Cox regression analysis showed that older age (HR 1.02, 95% CI 1.00–1.04, p=0.006) and higher CRP at baseline (HR 1.24, 95% CI 1.10–1.40, p=0.001) were associated with the long-term use of GCs, whereas significant predictors of a shorter treatment duration were the use of N-BPs (HR 0.66, 95% CI 0.50–0.88, p=0.004; figure 1) and a higher initial prednisone dose (HR 0.98, 95% CI 0.96–0.99, p=0.002).

Abstract THU0434 – Figure 1. Risk function of long-term GC use for the use of antiresorptive medications.

Adjusted HR 0.66 (95% CI: 0.50, 0.88), p=0.004.

Conclusions: Unlike current guidelines, in clinical practice a long-term treatment with GCs is often necessary in PMR. There is need to investigate novel treatments for PMR. This preliminary data suggests that aminobisphosphonates may have a role in the management of PMR.

Disclosure of Interest: None declared

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THU0435

LONG-TERM OUTCOME AND PROGNOSIS FACTORS OF COMPLICATIONS IN THROMBOANGIITIS OBLITERANS (BUERGER'S DISEASE): A MULTICENTER STUDY OF 224 PATIENTS

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Background: Buerger's disease or thromboangiitis obliterans (TAO) is a non-atherosclerotic arteritis of distal extremities. Data regarding long term outcome of patients with Buerger's disease or thromboangiitis obliterans (TAO) are lacking and most series come from Middle-East and Far-East.

Objectives: We aim report clinical presentation and assess long-term outcome and prognosis factors in a large cohort of TAO.

Methods: Retrospective multicenter study of characteristics and outcomes of 224 TAO patients fulfilling Papa's and/or 5 Shinoya's criteria were analysed. Factors associated with vascular event free survival and amputation free survival were identified.

Results: The median age at diagnosis was 38.5³²⁻⁴⁶ years, 51 (28.5%) patients were female and 81.5% were Caucasians. All but 3 were smokers with a median of 22 pack-year and 22.8% were also addict to cannabis. At diagnosis, 53% had claudication, 73% trophic disorders and 8.8% an infection. Lower extremities and upper extremities were affected in 54% and 28% respectively. Superficial vein thrombosis, Raynaud's phenomenon and arthralgia occurred in 18%, 41% and 8%, respectively.

Ethnic group (non-Caucasian) and ischaemic ulcers or necrosis were independent factors of vascular events HR=7.67 [3.1-19.2] p=0.005 and 2.28 [1.3-4] p<0.001. At 15 years, amputation-free survival and major amputation-free survival were 66% and 91%, respectively. Infection was the only independent predictive factor of amputation HR=4.6[1.9-11], p<0.001. Age, sex and cannabis addiction were not associated with events or amputation. Patient who stopped their tobacco consumption had lower vascular event (p=0.029) and amputation rate (p=0.001) than those who continued. Three patients died during follow-up.

Conclusions: This nationwide study shows that 34% of TAO patients will experience an amputation within 15 years from diagnosis. We identified specific characteristics that identified those at highest risk for subsequent vascular complications.

Disclosure of Interest: None declared

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THU0436

INCIDENCE, PREVALENCE, MORTALITY AND CHRONIC RENAL DAMAGE OF ANCA-ASSOCIATED GLOMERULONEPHRITIS IN A 20 YEAR POPULATION-BASED COHORT

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Background: True population-based incidence rates of ANCA-associated glomerulonephritis (AAGN) are lacking.

Objectives: We aimed to estimate incidence, prevalence and mortality of AAGN, and to assess if the grade of chronic renal damage at presentation predicts renal and non-renal outcomes.

Methods: A population-based incident cohort of 57 Olmsted County residents diagnosed with ANCA-associated vasculitis (AAV) in 1996-2015 was identified

by medical record review. AAGN was defined as an increase in creatinine >30% and/or a decrease in estimated glomerular filtration rate >25%, and/or the presence of urine red cell casts or hematuria and/or biopsy-proven necrotizing and/or crescentic glomerulonephritis. Incidence rates were age- and sex-adjusted to the 2010 US white population. Age- and sex-adjusted prevalence was calculated for January 1, 2015. Survival rates were compared with expected rates in Minnesota population. Chronic renal damage was assessed by chronicity score (CS) on biopsies performed at diagnosis.

Results: Thirty-four (60%) patients had AAGN. Of these, 65% had microscopic polyangiitis (MPA), and 74% were myeloperoxidase (MPO)-ANCA-positive. The annual incidence of AAGN was 2.0/100,000 population (95% CI:1.3-2.7), the overall prevalence was 35/100,000 (95%CI:24-47). Mortality for AAGN was increased (p<0.001), whereas mortality for AAV without glomerulonephritis did not differ from the general population. Minimal/mild CS predicted recovery of renal function at 1 year (p=0.035; **figure 1A**); clinical diagnosis (granulomatosis with polyangiitis (GPA) versus MPA) and ANCA-specificity (proteinase 3 (PR3)-AAV versus MPO-AAV) did not (**figure 1B-C**).

Conclusions: Annual incidence and prevalence of AAGN in Minnesota are 2.0/100,000 and 35/100,000, respectively. Mortality is worse compared to AAV patients without glomerulonephritis. More advanced renal damage at diagnosis predicts less renal recovery.

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