Extending the classification to probable besides defined, 38/60 (63.3%) met Bohan and Peter criteria and 51/60 (85%) met EULAR/ACR criteria.

Table 1 shows percentage of patients meeting each criteria set by clinical subtype.

Patients with available muscle biopsy (n=14) were subanalyzed: 11/14 (78.6%) muscle biopsy were compatible with IIM (3 not compatible, but previously treated). DM 3/11 (28.6%), ASS 1/11 (7.14%) y CTD-OM 7/11 (50%). 7/11 (50%) met Bohan and Peter criteria, 8/11 (78.6%) met Tanimoto criteria and 8/11 met EULAR/ACR criteria. If extended to probable cases, 11/11 (100%) met Bohan and Peter criteria and 10/11 (91%) EULAR/ACR criteria.

Table 1 Fulfillment of different criteria set by IIM subtype

	Bohan & Peter (%)			Tanimoto (%)	EULAR/ACR (%)		
	Probable	Definite	Total		Probable	Definite	Total
DM (n=20)	60	25	85	35	10	85	95
CADM (n=4)	0	0	0	0	25	75	100
PM (n=4)	75	0	75	50	50	0	50
ASS (n=10)	50	10	60	80	30	70	100
CTD-OM (n=22)	27,3	27,3	54,6	54,50%	41	31,8	72,8
DM/CTD-OM (n=4)	25	50	75	75	0	100	100
PM/CTD-OM (n=18)	27,8	22,2	50	55,5	50	16,6	66,6

Conclusions: EULAR/ACR²⁰¹⁷ performed especially well for DM, and were the only criteria set met by CADM patients.

PM patients failed to meet Bohan and Peter and EULAR/ACR criteria for definite disease, probably due to low availability of EMG and muscle biopsy. This was similar for pure PM and PM/CTD-OM.

Tanimoto criteria were the most sensitive for classification of ASS patients, which could be explained because they consider arthritis among clinical features.

When considering probable and defined cases, EULAR/ACR criteria were highly sensitive in this real world cohort

Disclosure of Interest: None declared

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THU0423 EPIDEMIOLOGY AND SURVIVAL OF SYSTEMIC SCLEROSIS-SYSTEMIC LUPUS ERYTHEMATOSUS OVERLAP SYNDROME

S. Alharbi^{1,2,3,*}, Z. Ahmad², A. Bookman¹, Z. Touma^{1,4}, J. Sanchez-Guerrero^{1,2}, N. Mitsakakis^{4,5}, S.R. Johnson^{1,2,4}. ¹Toronto Scleroderma Program, Division of Rheumatology, Toronto Western Hospital, University Health Network; ²Division of Rheumatology, Mount Sinai Hospital, University of Toronto, Toronto, Canada; ³Taibah University, Medina, Saudi Arabia; ⁴Institute of Health Policy, Management and Evaluation; ⁵Toronto Health Economics and Technology Assessment Collaborative, University of Toronto, Toronto, Canada

Background: Systemic sclerosis (SSc) is an immune disorder characterised by vasculopathy and fibrosis that may overlap with another disease such as systemic lupus erythematosus (SLE). Little is known about the epidemiology, clinical characteristics, and survival of SSc-SLE overlap (also called lupoderma). We evaluated the prevalence of SSc-SLE overlap syndrome, differences in SSc clinical characteristics and survival compared with SSc without SLE.

Methods: A cohort study was conducted including subjects who fulfilled the ACR-EULAR classification criteria for SSc and/or the ACR criteria for SLE. The primary outcome was the time from diagnosis to death from all causes. Survival was evaluated using Kaplan Meier curves and Cox Proportional Hazard models.

Results: We identified 1252 subjects (SSc n=1166, SSc-SLE n=86) with a SSc-SLE prevalence of 6.8%. SSc-SLE were younger at diagnosis (37.9 years versus 47.9 years, p<0.001), more frequently had lupus anticoagulant (6% versus 0.3%, p<0.001), anticardiolipin antibody (6% versus 0.9%, p<0.001), and pulmonary arterial hypertension (PAH) (52% versus 31%, p<0.001). SSc-SLE less frequently had calcinosis (13% versus 27%, p=0.007), telangiectasia (49% versus 75%, p<0.001) and diffuse subtype (12% versus 35%, p<0.001). There were no significant differences in the occurrence of renal crisis (7% versus 7%), interstitial lung disease (40% versus 34%), and digital ulcers (38% versus 32%). SSc-SLE had better survival (median 26.1 versus 22.4 years), but this was not statistically significant (log rank p=0.06). Female sex and diffuse subtype attenuated survival differences between groups (Hazard Ratio 0.70, 95% CI 0.45, 1.11).

Conclusions: SSc-SLE are younger at diagnosis, more frequently have PAH, and less frequently have cutaneous manifestations of SSc. SSc-SLE patients should be monitored for pulmonary hypertension, interstitial lung disease, renal crisis and digital ulcers.

Disclosure of Interest: None declared

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THU0424 ARTICULAR INVOLVEMENT IN SYSTEMIC SCLEROSIS: COMPARISON OF CLINICAL, RADIOGRAPHIC AND SONOGRAPHIC FINDINGS

S. Thietart¹, K. Louati², E. Gaigneux², M. Gafosse¹, S. Riviere¹, J. Sellam², F. Berenbaum², O. Fain¹, A. Mekinian¹. ¹Internal medicine; ²Rheumatology, Hôpital Saint Antoine, AP-HP, Université Paris 6, 75012 Paris, France., Paris, France

Background: Joint involvement in Systemic Sclerosis (SSc) is frequent and varied.^{1,2}

Objectives: We study US synovitis and its correlation with clinical synovitis, radiological erosions and organ involvement.

Methods: In a prospective cohort of SSc patients, tender and swollen joint counts, DAS28-CRP, hand US sonographies, X-ray hand views, as well as respiratory, cardiac, cutaneous and renal characteristics were assessed.

Results: 54 patients were included with a median age of 59 years,²⁷⁻⁸¹ 45 women (83%), with a diffuse cutaneous subtype in 13 patients (24%). 23 patients (52%) presented with arthralgia, 9 had clinical synovitis (16%) and DAS28-CRP of 3.7 (2.98-5.90). US sonography (34 patients) found at least one synovitis in 23 patients: 14 patients with grade 1 (66%), 6 patients grade 2 (29%), 1 patient grade 3 (5%), with a positive power Doppler signal in one case (3%). Among the patients having US-synovitis, 4 had clinical synovitis (17%), and 4 had X-ray erosions (17%). Radiological erosions were present in 8 patients (15%), without any correlation with clinical or US synovitis. Articular involvement (defined as clinical synovitis, US-synovitis and/or articular erosions) were found more frequently in limited SSc (n=28, 72%) than in diffuse SSc (n=4, 31%) (p<0.001), with a more frequent positivity of anti-centromere antibodies (n=23, 60% versus n=3, 20%). No correlation was found with disease severity or other organ impairment.

Conclusions: US synovitis were found more frequently than clinical synovitis, which are merely active, and did not correlate with articular destruction.

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THU0425 18F-FLUORODEOXYGLUCOSE POSITRON EMISSION TOMOGRAPHY/COMPUTED TOMOGRAPHY AND LUNG INVOLVEMENT IN SYSTEMIC SCLEROSIS

S. Bellando-Randone¹, L. Tartarelli², E. Cavigli³, L. Tofani⁴, C. Bruni¹, G. Lepri¹, J. Blagojevic¹, A. Moggi Pignone⁵, C. Mihaie⁶, J. Avouac⁷, A. Passeri², M.T. De Cristofaro², O. Distler⁶, Y. Allanore⁷, S. Guiducci¹, M. Matucci Cerinic¹. ¹Dept of Experimental and Clinical Medicine, University of Florence, Italy and Dept of Geriatric Medicine, Div Rheumatology AOUC; ²Department of Biomedical, Experimental and Clinical Sciences, "Mario Serio", Nuclear Medicine Unit, University of Florence; ³Department of Radiodiagnostic and Emergency, Careggi University Hospital, Florence; ⁴Department of Neurosciences, Psychology, Drug Research and Child Health, University of Florence, Florence; ⁵Internal Medicine of Careggi University Hospital, Florence, Italy; ⁶Department of Rheumatology, University Hospital Zurich, Zurich, Switzerland; ⁷Department of Rheumatology A, Cochin Hospital, INSERM U1016, Paris Descartes University, Paris, France

Background: At early stages, SSc lung involvement is characterised by Ground Glass Opacities (GGO) at High Resolution Computed Tomography (HRCT). However, HRCT scan is not able to provide functional information and to discriminate between an "active inflammatory" and an "established fibrotic" GGO. 18Fluoro-Deoxy-d-Glucose (18F-FDG) Positron Emission Tomography/Computed Tomography (PET/CT) is able to detect metabolic activity picking up inflammation and provides both morphologic and metabolic data.

Objectives: The aim of this study was to evaluate, if 18F-FDG PET/CT scan may identify the inflammatory component of GGO in SSc interstitial lung disease.

Methods: Seven patients with SSc (1 male and 6 females; mean age 59.56 y ±9.15 SD; median disease duration 5 years,²⁻¹¹ who underwent 18F-FDG PET/CT scan because of cancer screening, were retrospectively analysed. HRCT

images analysis led to classification of pulmonary segments as "negative" (normal morphology) and "positive" (GGO). Furthermore, the "Warrick score" was used as a staging tool for SSc-ILD. Mean Standardised Uptake Value (mSUV) of segmental parenchyma was normalised (nmSUV) by comparison with the values of selected control subjects.

Results: No SSc patient was affected by cancer. Three patients had a Warrick Score >0, while 4 patients did not have any lung involvement (Warrick Score=0). The 3 patients with a Warrick Score >0 had also skin involvement with a median mRSS 6 (2–7) and pathological lung FDG uptake. In "positive" segments of SSc patients, nmSUV was significantly higher than in the lung segments of the control population (mean estimation 1.53; C.I. 1.42–1.65, $p<0.0001$). In "negative" segments of SSc patients, with a Warrick score >0, the nmSUV was significantly higher than in segments of the control population (mean estimation 1.29; C.I. 1.22–1.37, $p<0.0001$). Lung segments with GGO showed an nmSUV higher (21%) than "negative" segments (C.I. 0.13–0.28, $p<0.0001$) of patients with Warrick score >0. "Negative" lung segments of patients with Warrick Score >0 showed a 32% higher 18F-FDG uptake than "negative" lung segments of patients with Warrick Score=0. (C.I. 0.17–0.48, $p<0.0001$). (figure 1)

Abstract THU0425 – Figure 1. a) Differences in 18F-FDG uptake between "positive" segments of Warrick score >0 SSc patients, "negative" segments of Warrick score >0 SSc patients and "negative" segments of Warrick score=0 SSc patients vs attended normalised control value (=1); b) Differences in 18F-FDG uptake between "positive" lung segments of SSc patients with Warrick score>0 vs "negative" segments of the same patients; c) Differences in 18F-FDG uptake "negative" lung segments of patients with Warrick Score>0 vs "negative" lung segments of patients with Warrick Score=0

Conclusions: Morphologically "positive" GGO segments show an increased 18F-FDG uptake suggesting the existence of a metabolically active (inflammatory) GGO. However, in patients with GGO, negative lung segments showed a higher nmSUV than negative lung segments in patients without GGO. This may suggest that PET/CT may disclose an underlying inflammatory process, which cannot yet be evidenced by HRCT. Further studies on a larger population are warranted to confirm these data and possibly provide a prognostic significance of PET/CT positivity in SSc patients.

Disclosure of Interest: None declared

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THU0426 ETHNIC VARIATION IN SYSTEMIC SCLEROSIS MORBIDITY AND MORTALITY

H. Al-Sheikh, Z. Ahmad, S.R. Johnson. Toronto Scleroderma Program, Division of Rheumatology, Department of Medicine, Sinai Health Systems, University Health Network, University of Toronto, Toronto, Canada

Background: Systemic sclerosis (SSc) is an uncommon connective tissue disease characterised by pathological skin thickening and can involve multiple internal organs. Ethnic variations in SSc have been reported in clinical manifestations, severity of the disease as well as survival.

Objectives: Our aim was to compare the survival and disease manifestations across ethnicity among SSc patients.

Methods: The Toronto Scleroderma Program is the largest single-centre, multi-ethnic, longitudinal SSc cohort in Canada. Patients are followed every 6 to 12 months using a standardised protocol. Patients who fulfilled the American College of Rheumatology-European League Against Rheumatism classification criteria for SSc and are 16 years of age or older were included in our retrospective cohort study. The study period was 1970–2017. Ethnicity was self-reported and was categorised as: Caucasian, African-American, Hispanic, Arab, East-Asian, First Nations or Persian. The primary outcome was the time from diagnosis to death from all causes. Secondary outcomes were differences in disease duration, SSc subtype, clinical manifestations, and serology. Survival probabilities and median survival times were determined using Kaplan-Meier survival curves. Cox proportional hazard models were used to estimate adjusted survival.

Results: 1005 subjects were evaluated, the majority of whom were Caucasian (n=745 (74%), African-American n=58 (6%)), South Asian (n=69 (7%)), and East Asian (n=80 (8%)). Compared to Caucasians, East Asians less frequently had calcinosis (29% versus 9%, $p=0.002$), and esophageal dysmotility (88% versus 69%, $p=0.002$); African-Americans more frequently had interstitial lung disease (31% versus 53%, $p=0.007$); and First Nation subjects more frequently had diffuse cutaneous disease (35% versus 56%, $p=0.02$) and diabetes (5% versus 33%, $p=0.03$). There were no differences across ethnicities in the prevalence of pulmonary hypertension, renal crisis, or digital ulcers.

We found no difference in the short-term survival across ethnicities. However, in the long-term, there was trend for Hispanic subject to have better survival (81.3% (95%CI 63, 100), while First Nations (58.3% (95%CI 25, 100) and South Asian subjects (52.6% (95%CI 32, 87) had worst survival at 15 years and 20 years, respectively. East Asians appear to have the longest median survival time 43.3 years.

Conclusions: Ethnic variations in disease SSc disease manifestations are observed. However, in the setting of a universal health care system, this does not result in significant differences in survival.

Disclosure of Interest: None declared

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THU0427 COMPARABLE CARDIOVASCULAR DISEASE AND NEOPLASM RATES BUT HIGHER FREQUENCY OF DEPRESSION IN SYSTEMIC SCLEROSIS VERSUS RHEUMATOID ARTHRITIS: A MULTICENTRE COMPARATIVE STUDY OF COMORBIDITIES

S. Panopoulos¹, M.G. Tektonidou¹, A. Drosos², S.-N. Lioussis³, T. Dimitroulas⁴, L. Sakkas⁵, D. Boumpas¹, P. Voulgaris², D. Daoussis³, K. Thomas¹, G. Georgiopoulos¹, G. Vosvotekas⁴, D. Vassilopoulos¹, P.P. Sfikakis¹. ¹Joint Rheumatology Program, School of Medicine, National and Kapodistrian University of Athens, Athens; ²Rheumatology Clinic, Department of Internal Medicine, Medical School, University of Ioannina, Ioannina; ³Division of Rheumatology, Department of Internal Medicine, Faculty of Medicine, University of Patras, Patras; ⁴4th Department of Internal Medicine, School of Medicine, Hippokraton Hospital, Aristotle University of Thessaloniki, Thessaloniki; ⁵Department of Rheumatology and Clinical Immunology, Faculty of Medicine, School of Health Sciences, University of Thessaly, Larissa, Greece

Background: An increased burden of comorbid conditions negatively impacts patients' outcomes, leads to increased mortality and seems to characterise all chronic systemic connective tissue diseases. Systemic Sclerosis (SSc) is associated with the highest mortality rate comparing to other diseases, whereas data regarding epidemiology and clinical expression of SSc comorbidities is limited. In contrast, comorbidities of rheumatoid arthritis (RA), and especially the increased rate of cardiovascular disease, are better established.

Objectives: To compare the prevalence of common comorbidities in SSc versus RA in a large multicentre case-control study from 5 academic centres in Greece.

Methods: Between 2016 and 2017 consecutive SSc patients (n=408, mean age: 58.6 years, 88% women) were matched 1:1 for age and gender with 408 RA patients. Evaluated comorbidities were dyslipidemia, diabetes mellitus, arterial hypertension, coronary artery disease, stroke, chronic obstructive pulmonary disease, osteoporosis, neoplasms and depression. Differences were examined by χ^2 test.