Microangiopathy evolution score was 5.19 (2.04), VAS for DU was 75.52 (16.17), VAS for Raynaud was 67.43 (14.16), HAQ was 1.62 (0.55). 5 patients received Bosentan less than 6 months, so they were excluded from the statistical analysis. 6 month evaluation revealed significant decrease in the number of DU ($p<0.01$), the VAS for DU ($p<0.01$), the VAS for Raynaud ($p=0.03$) and the HAQ ($p=0.04$), but not of the microangiopathy evolution score. No significant difference was noticed of the above mentioned parameters at the next follow-up evaluations. Regarding Bosentan safety: 6 patients died during the follow up (3 cases of severe pulmonary arterial hypertension, 1 scleroderma renal crisis, 1 heart failure, 1 post vascular surgery). Bosentan was stopped due to lack of efficacy in 2 cases and due to side effects in 3 cases: 2 elevated liver enzymes, 1 severe thrombocytopenia and 1 dyspnea aggravation.

12 patients had a follow up after 6 months Bosentan stop. We did not notice any significant increase in the number of DU, the VAS for DU or Raynaud, the capillaroscopic semiquantitative scoring or the HAQ.

Conclusions: We noted a significant decrease in the number of DU, patients perception of Raynaud and of DU after 6 months of treatment and the effect was maintained in the 3 years follow-up, even 6 months after Bosentan was stopped. In this long-term follow-up no new unidentified adverse reactions were found, except for the unexpected severe thrombocytopenia. The present study is limited due to the small sample size, to the observational nature and should be viewed as descriptive. Questions rise about drug costs (6 months or long term treatment), but it also has to be emphasised that most of these lesions were chronic and non-responsive to previous treatments.

REFERENCES:

- Matucci-Cerinic M, et al. Bosentan treatment of digital ulcers related to systemic sclerosis: results from the RAPIDS-2 randomised, double-blind, placebo-controlled trial. *Ann Rheum Dis*. 2011;70(1):32–8
- P. García de la Peña-Lefebvre, et al. Long-term experience of bosentan for treating ulcers and healed ulcers in systemic sclerosis patients. *Rheumatology (Oxford)*. 2008;47(4):464–6.

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AB0780

PROLONGED PROTON PUMP INHIBITOR EXPOSURE IS ASSOCIATED WITH DEVELOPMENT OF CALCINOSIS IN SYSTEMIC SCLEROSIS

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Background: Long-term use of proton pump inhibitors (PPI) has been associated with some safety concerns, including potential vascular calcification. In a previous retrospective analysis, we noted a possible association between PPI use and calcinosis in scleroderma (SSc).

Objectives: To investigate the association between PPI use and the presence and extent of calcinosis in SSc patients.

Methods: Data from prospectively recruited patients were collected by patient survey, physician assessment and medical records. Calcinosis was graded; size ($+=<1$ cm, $++=\geq 1$ –3 cm, $+++>3$ cm) and number of sites involved (NSI) ($I=1$ body site, $II=2$ –3, $III\geq 3$). A total daily PPI equivalent dose (TDED) was calculated for each patient. We calculated PPI exposure score (PPE) by multiplying the total duration of use by TDED. For analysis, PPE was categorised into four groups; 0=no exposure, 1=up to 5 years, 2=6–10 years, $3\geq 10$ years. Fisher's exact test was used to assess categorical variables. Logistic regression assessed association between calcinosis and independent variables.

Results: 216 patients were recruited, 81.5% females, mean age 57.46 (SD 13.5) years. 56.5% had limited, 31.5% diffuse SSc, 9.7% had overlap features and 2.3% other CTD. Mean disease duration was 10 years (SD 9). ANA subtypes were defined: ACA positive (31.5%), ATA (25.5%), ARA (12.0%), ANA +ENA- (11.6%), U3RNP (5.1%), ANA- (4.2%), PmSCL (3.7%) and 6.5% other antibodies. Gastroesophageal reflux symptoms occurred in 83.3% of patients, most were on PPI (81%) and 14.8% had previously been on PPI. Current calcinosis (CC) was present in 30.1% patients, 9.7% reported past calcinosis. 39.8% had calcinosis at any time (CAT). 60.2% of patients never had calcinosis. Of those with CC, 47.7% had >1 site involved. The most frequent sites affected were; finger (70.8%), elbow (35.4%) and knee (18.5%).

Univariable analysis found an association between disease duration and calcinosis, with odds of CAT increased by 7% per year (OR 1.07, CI 1.04–1.11, $p<0.001$). Similarly, every year of PPE increased odds of CAT by 3% (OR 1.03, CI 1.01–1.05, $p=0.003$). Increasing age associated with CAT (odds increasing by 2% per annum, $p=0.043$). Exposure to a standard dose of PPI for over 10 years increased the odds of calcinosis by 4 times (OR 4.07, CI 1.68–9.85, $p=0.002$) compared to no exposure. PPE category associated with NSI ($p=0.04$). 73.3% of patients with

large volume calcinosis (>3 cm) had a PPE for >10 years and all with calcinosis >3 cm had exposure to PPI.

Multivariable logistic regression found that disease duration (OR 1.07, CI 1.03–1.11, $p=0.001$) and antibody specificity strongly associated with calcinosis. Presence of ATA (OR 0.32, CI 0.14–0.75 $p=0.008$), ANA- (OR 0.13, CI 0.02–0.79, $p=0.026$), and ANA +ENA- (OR 0.17, CI 0.05–0.52, $p=0.002$) reduced odds of calcinosis. Although the effect of PPIs on calcinosis was attenuated after adjusting for disease duration and antibodies, higher exposure to PPIs remained a significant predictor of calcinosis, with PPE category (>10) increasing risk of CAT (OR 3.34, CI 1.16–9.17, $p=0.025$).

Conclusions: Our data support a novel association of PPI exposure with calcinosis and confirm association of disease duration and antibody profile. Given the clinical impact of calcinosis, a potentially modifiable risk factor of PPI exposure warrants further study.

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AB0781

GLUCOCORTICOID DOSE AND CARDIAC INVOLVEMENT MIGHT BE POTENTIAL RISK FACTORS FOR SCLERODERMA RENAL CRISIS

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Background: Scleroderma renal crisis (SRC) is a rare but life-threatening complication of systemic sclerosis (SSc). SRC remains a major risk factor for mortality in SSc. It is important to identify potential risk factors for SRC, and avoid developing overt SRC.

Objectives: To perform a retrospective case series analysis of the characteristics, management and outcomes of SRC in Chinese SSc patients.

Methods: SSc patients hospitalised at Sun Yat-Sen Memorial Hospital from January 1992 to December 2017 were recruited. Clinical data were collected. SRC was defined as new onset, with blood pressure (BP) $>140/90$ mmHg or ≥ 30 mmHg rise in BP from baseline, rising serum creatinine (Scr) levels and/or oliguria. Data were showed as mean $\pm$ standard deviation.

Results: (¹ There were 749 SSc patients recruited and 16 patients (2.1%) of them were hospitalised for SRC. Among these 16 patients, 56% were females, age was 54.6 ± 13.6 years, mean duration from SSc onset to SRC occurred was 4 years.

(² SRC developed in 14 patients (87.5%) with diffuse cutaneous SSc (dcSSc), and in 2 patients (12.5%) with limited cutaneous SSc (lcSSc). Eleven patients (68.8%) were under glucocorticoid treatment before SRC onset: 4 patients received ≥ 30 mg/d of prednisone, 6 patients received ≥ 7.5 mg/d prednisone and 1 patient received <7.5 mg/d prednisone. No patient was treated with angiotensin-converting enzyme (ACE) inhibitors before SRC.

(³ All 16 patients manifested progressive renal failure, with Scr levels increase to 420 ± 256 μ mol/L. Ten patients manifested new onset hypertension, with systolic BP 175 ± 21 mmHg and diastolic BP 108 ± 13 mmHg. Five patients who had a history of well-controlled hypertension manifested accelerated increase in BP $178\pm 17/108\pm 7$ mmHg. One patient was normotensive, but manifested rapidly progressive oliguric renal failure with Scr increase to 969 μ mol/L, massive proteinuria and hemolytic anaemia.

(⁴ Twelve patients (75%) had pulmonary fibrosis, 11 patients (68.8%) had cardiac involvement, 6 patients had pulmonary arterial hypertension (PAH) and 6 patients had gastrointestinal dysfunction. Cardiac involvement was common, manifested pericarditis, myocardial damage and heart failure ($n=7$, 43.8%, respectively). All 5 dead patients were accompanied by cardiac involvement.

(⁵ Eleven patients had Raynaud's phenomenon, 8 patients had digital ulcers, 5 patients had arthritis and 2 patients had oliguria. Thirteen patients (81%) manifested anaemia, 8 patients (50%) manifested thrombocytopenia, and 8 patients (50%) manifested microangiopathic haemolytic anaemia (MAHA).

Eleven patients (68.8%) received ACE inhibitor treatment. Fifteen patients were treated with glucocorticoid and 12 patients with immunosuppressant (Cyclophosphamide $n=10$, Azathioprine $n=2$). After treatment, renal recovered in 4 patients (25%), kidney function improved and developed to chronic kidney disease (CKD) without dialysis in 5 patients (31%), 2 patients required permanent dialysis (13%). Five patients (31%) died.

Abstract AB0781 – Table 1. Characteristics of 16 patients with Scleroderma renal crisis

Pt.No	Age(y)	Sex	SRC duration(y)	Prednisone before SRC	Ssc form	Pulmonary fibrosis	Cardiac involvement	PAH	MAHA	BP (mmHg)	Ser (μmol/L)	ACE inhibitor	Outcome
1	62	F	0.25	10mg/d	dcSSc	+	+	+	+	170/100	206	None	Recovered
2	20	F	10	None	dcSSc	+	+	+	+	168/120	299	Irbesartan	died
3	61	F	1	30mg/d	dcSSc	+	+	+	+	170/100	153	Losartan	Recovered
4	60	M	1	30mg/d	dcSSc	+	+	+	+	175/128	511	Captopril	CKD
5	65	M	5	None	dcSSc	+	+	+	+	198/97	174	Captopril	Recovered
6	64	M	5	5mg god	dcSSc	+	+	+	+	190/90	504	Captopril	CKD
7	62	F	1	10mg/d	dcSSc	+	+	+	+	130/102	420	Captopril	died
8	64	F	10	None	dcSSc	+	+	+	+	160/110	259	None	CKD
9	58	M	2	15mg/d	dcSSc	+	+	+	+	189/122	149	Captopril	Recovered
10	24	M	0.5	30mg/d	dcSSc	+	+	+	+	200/120	956	Captopril	Dialysis
11	64	M	8	None	lcSSc	+	+	+	+	194/102	400	Captopril	CKD
12	45	F	15	10mg/d	dcSSc	+	+	+	+	200/120	248	Captopril	died
13	61	M	2	15mg/d	dcSSc	+	+	+	+	110/70	969	Captopril	Dialysis
14	61	F	1	15mg/d	lcSSc	+	+	+	+	193/110	587	None	CKD
15	58	F	1	None	dcSSc	+	+	+	+	150/86	473	None	died
16	46	F	3	35mg/d	dcSSc	+	+	+	+	180/100	392	Captopril	died

SRC: Scleroderma renal crisis, SSc: systemic sclerosis, dcSSc: diffuse cutaneous SSc, lcSSc: limited cutaneous SSc, PAH: pulmonary arterial hypertension, MAHA: microangiopathic haemolytic anaemia, CKD: chronic kidney disease

Conclusions: Medium-to-high doses of glucocorticoids (prednisone ≥ 7.5 mg/d) were associated with an increased risk of SRC. Cardiac involvement was common and associated with high mortality in SRC patients.

Disclosure of Interest: None declared

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AB0782 SYSTEMIC SCLEROSIS PATIENTS WITH CONCOMITANT PSORIASIS: A PROOF-OF-CONCEPT PILOT STUDY

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Background: Psoriasis and Systemic Sclerosis (SSc) are chronic inflammatory diseases characterised by a systemic immunological response which is mainly driven by activated T helper (Th) Th1/Th17 lymphocytes.^{1,2} Further, genome-wide association studies (GWAS) in SSc have demonstrated an association at PSORS1C1, the same gene linked to psoriasis susceptibility³

Objectives: Evaluate the statistical significance of a clinical correlation between Scleroderma and Psoriasis

Methods: From April 2014 to April 2017, we enrolled 180 consecutive patients with a diagnosis of SSc fulfilling 2013 ACR/EULAR classification criteria. Patients with Localised Scleroderma (Morphea) had to have a diagnostic skin biopsy before being included. Patients satisfying VEDOSS criteria⁴ were also included. Patients with psoriasis had a dermatologist-proven diagnosis.

Results: 11/180 (6.1%, 95% IC:0.03–2.9) with scleroderma had a dermatologist-proven diagnosis of Psoriasis, and 23 patients (12.7%) had a family history of Psoriasis in a first-degree relative. For all the psoriatic patients except one, BMI was calculated; 50% had a BMI of >20 (average: 23.7). A metabolic syndrome was present in 3 out of 11 (27.2%), and in ten patients there were data available to calculate the presence of average moderate cardiovascular (CV) risk (11.5%). Finally, 3/11 patients (27.2%) had Psoriatic Arthritis (CASPAR classification criteria). In all 11 patients, Psoriasis was defined as mild (PASI ≤ 10).⁵ The average value of modified Rodnan Skin Score (mRSS) was curiously low (0.5), [limited cutaneous (lcSSc) 5 patients, Morphea 3 patients, Very Early Systemic Sclerosis (VEDOSS) 2 patients, and diffuse cutaneous disease (dcSSc) 1 patient. Anticentromere antibodies (ACA) were detected in 5/11 patients; antinuclear antibodies, with negative extractable nuclear antigens in 4/11; Anti-topoisomerase I were found in two cases.

Conclusions: Psoriasis was significantly associated with SSc ($p=0.014$), with a 2-fold higher frequency than that observed in general population (3%). Psoriasis +SSc, represent a further increased risk of CV disease. Th17 seems to play a crucial role in the pathogenesis of both diseases.

REFERENCES:

- [1] Fava A, Cimbro R, Wigley FM, et Al. Frequency of circulating topoisomerase-I specific CD4 T cells predicts presence and progression of interstitial lung disease in scleroderma. Frequency of circulating topoisomerase-I specific CD4 T cells predicts presence and progression of interstitial lung disease in scleroderma. Arthritis Research & Therapy 2016; (18):99:1–12.
- [2] Lei L, Zhao C, Qin F, He Z-Y, Wang X, et al. Th17 cells and IL-17 promote the skin and lung inflammation and fibrosis process in a bleomycin-induced murine model of systemic sclerosis. Clin Exp Rheumatol 2016; 34 (S 100): S14–S22.
- [3] Allanore Y, Saad M, Dieude P, et al. Genome-Wide Scan Identifies TNIP1, PSORS1C1, and RHOB As Novel Risk Loci for Systemic Sclerosis. PLoS Genetics 2011; (7): 1–13.
- [4] Minier T, Guiducci S, Bellando-Randone S Preliminary analysis of the very early diagnosis of systemic sclerosis (VEDOSS) EUSTAR multicentre study: evidence for puffy fingers as a pivotal sign for suspicion of systemic sclerosis. Ann Rheum Dis 2014;73(12):2087–93.

- [5] Marks R, Barton SP, Shuttleworth D, Finlay AY. Assessment of disease progress in psoriasis. Arch Dermatol 1989;125:235–40.

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AB0783 CLINICAL CHARACTERISTICS OF A COHORT OF PATIENTS WITH ANTI-JO1 ANTIBODIES

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Background: Anti-synthetase syndrome (ASSD) is characterised by myositis associated with anti-synthetase antibodies, fever, arthritis, Raynaud's phenomenon, "mechanic's hands" and diffuse interstitial lung disease (ILD); 80% of patients present incomplete forms. The most frequently detected anti-synthetase antibody is anti-Jo1 (anti-histidyl-tRNA synthetase), which usually leads to a greater lung involvement. In some cases of myositis, the simultaneous presence of anti-Jo1 and anti-Ro52 antibodies has been described, and it is debated whether the presence of both antibodies is accompanied by more severe pulmonary involvement.

Objectives: To compare the clinical manifestations of the positive anti-Jo1 patients, with and without associated anti-Ro52 antibodies.

Methods: This is a retrospective observational study of anti-Jo1 positive patients confirmed in the Immunology Laboratory, between 2009 and 2018. Two techniques were used to identify the anti-Jo1 and anti-Ro52 antibodies: Western blot (EUROLINE Myositis Profile 3 (IgG)) and Fluoroenzimimmunoassay (EliA, Thermofisher).

Results: In this study, 22 patients with anti-Jo1 antibodies were included, 16 (72.7%) women and 6 (27.2%) males. There was no association with FR or ACPA. The mean age was 57.3 years (SD:14.6) and the mean time of follow-up was 4.01 years (SD: 2.1). Of all patients, 5 had ASSD, the rest expressed the clinical picture of incomplete form. The most frequently clinical manifestations associated with anti-Jo1 were: muscular involvement ($n=18$, 81.8%), ILD ($n=13$, 59.1%), arthritis ($n=9$, 40.9%), Raynaud's phenomenon ($n=4$, 18.2%). No patient developed lesions of mechanic's hands. The majority of patients with muscular involvement (83.3%), had histological confirmation of inflammatory idiopathic myopathy (Dermato or Polymyositis). The most frequently found X-ray pattern (HRCT) in patients with ILD was Non-specific interstitial pneumonia (NSIP) ($n=9$, 69.2%), followed by 2 Respiratory bronchiolitis interstitial lung disease (RB-ILD) and 2 Idiopathic interstitial pneumonia (IIP). Nine patients presented ILD and Myositis concomitantly (40.9%), more than half had fibrosing pulmonary involvement. 50% ($n=11$) also had criteria for other autoimmune diseases (2 rheumatoid arthritis, 4 polymyositis, 4 dermatomyositis, and 1 overlap). Half of the patients with anti-Jo1 presented also anti-Ro52, which 27.3% exclusively developed myopathy, 18.2% ILD and both entities 54.5%. Half of the ILD presented a radiological fibrosing radiological pattern. During follow-up, 7 patients (31.8%) died, 2 of metastatic cancer (one renal and one ovarian) and 5 of complications of the ILD, of which 80% were anti-Jo1/anti-Ro52 "doublet" positives.

Abstract AB0783 – Table 1

	Age years (SD)	Follow-up years (SD)	Arthritis n(%)	Raynaud n(%)	Myositis n(%)	ILD n (%)	ILD/Myositis n(%)	Exitus n(%)
Anti-Jo1 (n=22)	57,3 (14,6)	4,0 (2,1)	9 (40,9)	4 (18,2)	18 ^(81,8)	13 ^(59,1)	9 (40,9)	7 (31,8)
"Doublet"	59,2 (15,3)	3,8 (2,0)	6 (54,5)	3 (27,3)	9 (81,8)	8 (72,7)	6 (54,5)	4 (36,4)
Anti-Jo1/ Anti-Ro52 (n=11)								

Conclusions: The ILD is a frequent manifestation and the main cause of death in the patients with anti-Jo1 of our cohort. The presence of anti-Jo1/anti-Ro52 "doublet" seems to lead to a worse prognosis in these patients.

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