DAS28-ESR clinical remission or low activity was achieved, generally from week 16 to 20, although relapses were frequent and all cases need retreatment after 6-9 months. In 4 patients, RTX retreatment dosage was optimized to 1 g/cycle. The 3 patients with pulmonary involvement showed stabilization (2 cases) or improvement (1) of the lung function (*as defined by the American Thoracic Society*). In patients with GMN, renal response to RTX treatment was complete in a patient and partial in the other. The patient with ITP entered remission after the first RTX cycle and no more cycles were needed. Response in patients with serositis and lymphadenitis was also complete and maintained. Moreover, the glucocorticoid doses were reduced to less than half of the initial dose in all cases. At the end of the follow-up, 7 out of the 13 patients (54%) were still being treated with RTX. For the remaining 6 patients, RTX was withdrawn because of primary failure (1), recurrent bacterial infections (2), gestational desire (2) sustained remission (1).

Conclusion: According to our preliminary results, RTX seems to be effective and relatively safe in patients with csDMARDs-resistant active MCTD.

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AB0595

EFFECTIVENESS OF TOPICAL SODIUM TIOSULFATE FOR THE TREATMENT OF CALCINOSIS-ASSOCIATED CUTANEOUS ULCERS IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: Treatment of calcinosis associated with systemic sclerosis (SSc) mainly involves the use of systemic therapies, which often have limited efficacy. However, little attention has been paid to local treatment, which is especially useful when associated with skin ulcers.

Objectives: To show our experience with topical sodium thiosulfate (TST) for the treatment of calcinosis-associated cutaneous ulcers in patients with SSc.

Methods: Descriptive analysis of a case series of patients with SSc and calcinosis-associated skin ulcers treated with TST. Wound management procedure: wounds and perilesional skin cleaning and disinfection is performed and, if needed, additional debridement. TST is compounded at 25% as w/o emulsion, for extensive calcinosis, or as beeler-base or cold-cream ointment, for limited calcinosis. Wounds are then covered with a polymeric foam dressing. This cure in moist healing environment shows some advantages over the dry cure (exudate control without damaging the perilesional skin, protection against contamination, and reduction of the needed cures, healing time and pain).

Results: Nine patients (7 women) with calcinosis-associated skin ulcers and SSc were included: 2 patients with diffuse SSc (DcSSc), 6 with limited SSc (LcSSc) and 1 with overlap syndrome. Median age was 60 years (IQR 20). 6 patients had localized wounds and 3 had extensive involvement and/or tumoral calcinosis which had been refractory to systemic treatment with diltiazem, colchicine, zoledronate, rituximab, and/or acenocoumarol and had suffered recurrent superinfections. Follow-up results of more than 3 months are available for 8 patients, who have been on TST a median time of 9 months (IQR 8.25). They have shown clinical improvement (disappearance of many calcinosis foci and partial or complete healing of the ulcers together with an improvement in pain, function, quality of life and satisfaction of the patients). Radiological improvement was also observed in 1 case. No TST related adverse effect has been detected, except for slight maceration of the wound edges due to the ointment preparation, which was resolved by protecting these with zinc oxide cream

Conclusion: In our experience, treatment with TST for calcinosis-associated skin ulcers in patients with SSc is an effective, safe and easily implementable therapeutic alternative in clinical practice.

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MSD, Novartis, Janssen, Bristol Myers Squibb, UCB Pharma, D Ybáñez-García Speakers bureau: Lilly, Roche, Sanofi, Juanjo J Alegre-Sancho Consultant of: UCB, Roche, Sanofi, Boehringer, Celltrion, Paid instructor for: GSK, Speakers bureau: MSD, GSK, Lilly, Sanofi, Roche, UCB, Actelion, Pfizer, Abbvie, Novartis

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AB0596

PREDICTORS, LONG TERM CLINICAL AND TREATMENT OUTCOMES IN SOUTH ASIAN PATIENTS WITH IDIOPATHIC INFLAMMATORY MYOSITIS: A SINGLE CENTER STUDY

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Background: Idiopathic inflammatory myositis (IIM) are a heterogeneous group of immune-mediated disorders with varied presentations and multiple organ involvement. Data on long term outcome among South Asian patients with IIM is sparse.

Objectives: To study the long term clinical outcome, treatment responses and factors predicting outcome among adult patients with IIM

Methods: Patients diagnosed as 'Idiopathic Inflammatory Myositis' under the department of Clinical Immunology and Rheumatology at CMC, Vellore, India were screened retrospectively. Patients aged 18 years and above, satisfying Bohan and Peter criteria, having follow up of one year or more with atleast two outpatient or inpatient visits between January 2010 and April 2019 were included in this study. Those patients with connective tissue disease associated myositis were not included. Details on muscle weakness, extramuscular involvement, muscle enzymes and treatment administered were recorded at baseline, 3, 6, 12, 18, 24 months and yearly thereafter. After assessing their cumulative response, categorization of patients into complete and partial responders was done. Complete responders were defined as patients with persistent muscle power of more than 4/5 and/or MMT 8 more than 76/80, complete resolution of skin, articular and lung involvement (if any) as well as muscle enzymes less than twice the upper limit of normal without any documented flares during the entire follow up period. Patients not satisfying the said criterias were grouped as Partial responders. Disease free survival duration was also analyzed.

Results: Out of 310 patients of IIM identified, 187 (60.3%) patients satisfied the inclusion criteria. Women were 2.2 times more than men and mean age at symptom onset was 35.7±12.6 years. Dermatomyositis was the predominant myositis subtype seen. All patients were put on steroids with the mean dose being 45.9 ± 18.6 mg/day. At baseline, the key immunosuppressants used were methotrexate in 44.9% and mycophenolate in 37.6% patients. The median follow up duration was 48 (25-80) months. An associated malignancy was diagnosed in 3.2% after a median duration of 24.5 months. Five patients expired after a median duration of 80 months from diagnosis. Normal muscle power was attained in 76.1% patients and 88.6% were vocational by the last follow up visit. Steroids were discontinued in 56.7% patients after a median duration of 24 months (p=0.0002). Discontinuation of the immunosuppressant was feasible in 10.2% patients after a median duration of 44 months. Assessment of

Figure 1. Disease free survival plot of patients with IIM

the cumulative responses revealed a relapsing and remitting course in 45.9%. Outcome predictors in univariate analysis were Jo-1 status, presence of arthritis, interstitial lung disease and pericardial effusion at baseline. On multivariate analysis, absence of pericardial effusion ($p=0.011$) and interstitial lung disease ($p=0.067$) at baseline were found to be predictors of complete response. Disease free survival probability estimated at 5 years and 10 years was 91.6% and 72.4% respectively. Estimating the probability gender wise, males achieved disease free status earlier than females.

Conclusion: A favorable clinical and functional outcome was seen in a significant proportion of these patients with IIM on long term follow up. Pericardial effusion and ILD were identified as predictors of poor clinical outcome.

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AB0597

PULMONARY FUNCTION IN PATIENTS DIAGNOSED OF EARLY SYSTEMIC SCLEROSIS: A NEW TOOL FOR SYSTEMIC SCLEROSIS CLASSIFICATION?

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Background: Interstitial lung disease (ILD) is a frequent complication of systemic sclerosis (SSc) and is often progressive and has a poor prognosis. A restrictive ventilatory defect could suggest ILD either alone or in combination with pulmonary arterial hypertension.

Nowadays, Early-SSc is well defined as preliminary stage of SSc. Patients who meet criteria for Early-SSc could benefit from an early diagnosis of pulmonary involvement.

Objectives: Our aim was to assess the pulmonary function in patients diagnosed of Early SSc.

Methods: Retrospective observational study of a wide and unselected series of patients diagnosed as Early-SSc from a single university hospital from 2012 to 2019. Patients were classified as Early-SSc following Le Roy criteria. Despite this, patients already did not meet 2013 ACR/EULAR classification criteria for SSc. We reviewed pulmonary function through conventional spirometry and diffusing capacity of lung for carbon monoxide (DLCO).

Results: We included 56 patients with a mean age of 52.3 ± 12.1 years (96.4% women; 3.6% men).

At the diagnosis of Early-SSc, no one of our patients evidenced a restrictive ventilatory pattern. DLCO was below normal limits in 18 patients (32.1%). Small airway obstruction expressed according decreased maximal (mid-) expiratory flow (MMEF) 25-75 was present in 24 patients (42.8%).

After a mean follow-up period of 38.3 ± 2.4 months, 29 (51.8%) patients fulfilled 2013 ACR/EULAR criteria. The average time between diagnosis of Early-SSc and achieve SSc classification was 24.4 ± 1.8 months. The remaining 27 patients continued classified as Early-SSc.

An analysis of the subgroup of patients which progressed to SSc showed that DLCO was decreased in 15 of those 29 patients (51.7%) and 18 of 29 patients (62.1%) presented decreased MMEF 25-75. Comparing with the subgroup of patients which not progressed to SSc were significant differences (Decreased DLCO: 51.7% vs 11.1%; $p=0.02$ and decreased MMEF 25-75: 42.8% vs 22.2%; $p=0.05$).

The analysis of pulmonary function of the subgroup of patients continued classified as Early-SSc after follow-up period did not show significative changes after follow-up.

Conclusion: In our study, a third of the patients classified as Early-SSc presented at diagnosis abnormal values of DLCO and/or signs of small airway obstruction without the presence of a restrictive ventilatory pattern. Moreover, this pulmonary dysfunction was significantly more frequent in patients who progressed to definitive SSc. Patients which remains classified as Early-SSc did not experience significative changes.

Our results support the concept that pulmonary function was impaired in Early-SSc and that I should probably be considered for future Early-SSc classification criteria.

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AB0598

THE INCREASING USE OF IMMUNOSUPPRESSANTS IN EARLY SYSTEMIC SCLEROSIS

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Background: Immunosuppression (IS) remains the main treatment for progressing skin involvement, active interstitial lung disease (ILD) and underlying inflammatory joint (IJ) or muscle disease in systemic sclerosis (SSc).

Objectives: This study investigated the pattern and trends in immunosuppressive agent use in patients with early SSc diagnosed before and after 2007 to determine whether the changes in the preferred type and combination of IS, timing and predictors of administration took place over the past decade.

Methods: 397 SSc patients from Canadian Scleroderma Research Group (CSRG) database (183dcSSc, 214lcSSc) who had baseline and follow-up visits within 3 years (1.8 ± 0.8) after disease onset were included: 82% females, age at diagnosis 53 ± 13 years, disease duration 1.6 ± 0.8 years. Organ involvement was assessed by modified Rodnan skin score, Medsger Disease Severity Score (DSS) and CSRG definitions using bivariate, chi-squared, ANOVA, and adjusted regression analyses.

Results: 115 dcSSc patients (63%) and 62 lcSSc (29%) received IS, most commonly methotrexate (MTX) (72% dcSSc and 52% lcSSc), followed by mycophenylate mofetil (MMF) and cyclophosphamide (CYC). Within the patients receiving IS, monotherapy prevailed (77% dcSSc and 68% lcSSc); CYC and azathioprine were the preferred choice of IS more frequently in lcSSc compared to dcSSc ($p<0.006$ and $p<0.02$, respectively). In dcSSc, IS were predominantly prescribed at years 2 and 3 after the onset of first non-Raynaud's phenomenon (RP) manifestation, when about half of the patients received IS. The proportion of lcSSc patients receiving IS was significantly lower and distributed more equally through the first three years. After 2007, dcSSc patients received IS more often (74% vs 50%, $p=0.001$), especially MTX ($p=0.02$) and MMF ($p<0.05$), and earlier (peaked at 2 years after disease onset)(Table 1).

Table 1. Proportion of patients receiving immunosuppressive treatment at each year after disease onset in SSc diagnosed before and after 2007.

Years after the first non-RP symptom	lcSSc				P-value
	Before 2007		After 2007		
	Total N of pts seen at each year	% receiving immune suppressives	Total N of pts seen at each year	% receiving immune suppressives	
1	13	15	47	17	>0.9
2	24	21	82	18	0.772
3	49	14	107	14	>0.9
	dcSSc				
1	24	29	40	43	0.286
2	51	26	65	65	0.0001
3	62	45	63	54	0.325

IS administration was associated with male gender, ILD, a-Scl-70 positivity, ACA-negativity and IJ disease in lcSSc, and with ACA-negativity and a higher mRSS in dcSSc. Multivariate logistic regression analysis showed that IS treatment could be predicted by ACA-negativity in lcSSc patients (Exp(B) 0.317, $p=0.012$) and younger age in dcSSc patients (Exp(B) 0.974, $p=0.002$).

Conclusion: Over the past decade, there has been a trend to prescribe IS more often, especially MTX, and earlier in dcSSc patients. MMF has gained favour over CYC. Autoantibody status was the most consistent predictor whether a patient is likely to take IS over the course of the disease.

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