Results: 3 RCTs contained data regarding mRSS at week 12 of treatment with Rituximab. The estimated SMD was -1.071 (95% CI -1.608, -0.535 [$p < 0.001$]) with a non-significant P value in the Egger Test ($P = 0.703$) and non-significant heterogeneity through I² ($I^2 = 0.00\%$). 9 studies contained data regarding mRSS at week 24 of treatment with Rituximab. The estimated SMD was -1.743 (CI95% -2.622, -0.864 [$p < 0.001$], see image below) with a non-significant P value in the Egger Test ($P = 0.072$) and significant heterogeneity through I² ($I^2 = 86.6\%$). Meta-regression analysis could not be performed to assess such heterogeneity, due to the lack of comparable data.

8 RCTs contained data regarding mRSS at week 48 of Rituximab treatment. The estimated SMD was -1.327 (CI95% -2.018, -0.636 [$p < 0.001$]) with a significant P value in the Egger Test ($P = 0.018$), estimating that there may be publication bias in the studies analyzed and significant heterogeneity by I² ($I^2 = 85.2\%$). Meta-regression analysis could not be performed to assess such heterogeneity, due to the lack of comparable data.

Conclusion: Our meta-analysis shows that Rituximab treatment in patients affected with systemic sclerosis shows efficacy in the treatment of cutaneous fibrosis measured by the mRSS, turning this molecule into a potential drug to add to the therapeutic armamentarium of systemic sclerosis. However, more studies are necessary to try to elucidate whether this change is powerful enough to become the new gold standard for the treatment of systemic sclerosis skin involvement.

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POS0874

CLOT LYSIS TIME PREDICTS RECURRENT DIGITAL ULCERS IN SYSTEMIC SCLEROSIS AFTER ONE YEAR OF FOLLOW-UP: A NESTED CASE-CONTROL STUDY

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Background: Digital ulcers (DU) are a common visible manifestation of vasculopathy in systemic sclerosis (SSc), which could be recurrent and associated with disability and mortality (1). Although vasculopathy is connected with impaired coagulation/fibrinolysis system and aberrant expression of adhesion molecules, there are few data about their role in developing recurrent DU.

Objectives: To evaluate the possible role of Fibrin generation/Fibrinolysis parameters and adhesion molecules in the prediction of new ischaemic DU onset during a 1-year follow-up and their impact on the time to new DU onset (TD).

Methods: From 58 consecutive patients with SSc who fulfilled the 2013 ACR/EULAR SSc criteria and have never been treated with endothelin receptor antagonist, phosphodiesterase 5 inhibitors or prostanoids, a total of 38 patients with

ever had DU, either active at inclusion or in past, were enrolled in a prospective cohort study. Each patient was given a "DU diary". Demographic, clinical and serological data were recorded. The serum concentration of ICAM1 and E selectin were measured by ELISA. Haemostatic potential parameters: overall haemostasis (OHP), overall coagulation (OCP) and overall fibrinolysis (OFP) potential were assessed. Maximum absorbance (Cmax), reflects the fibrin clot density and clot lysis time (Lys50t0, time from initiation of clot formation to the time at which a 50% fall in absorbance from Cmax in the lysis assay), reflects fibrinolytic susceptibility, were calculated (2). Fibrin structure was visualised using scanning electron microscopy (SEM).

Results: Over the follow-up period, 18 patients (45.5%) developed new DU with the average TD of 7.4±2.9 months. There was no difference in ASA and CCB treatment among two groups ($p > 0.05$). The OFP value was significantly decreased ($p < 0.01$), Lys50t0 prolonged ($p < 0.05$), while OHP was increased ($p < 0.05$) in patients experienced new DU. Lys50t0 showed good validity in identifying patients with new DU onset (AUC 0.683 95% CI 0.5 - 0.9). By multivariate analysis including clinical data in model the Lys50t0 (HR 1.2, 95% CI 1.1-1.3, $p = 0.018$) and active DU at enrollment (HR 9.6, 95% CI 1.4-66.8, $p = 0.022$) were identified as independent risk factors for the occurrence of new DU. TD was inversely correlated with ICAM1 ($p < 0.001$), E selectin ($p < 0.05$), Cmax ($p < 0.05$) and Lys50t0 ($p < 0.001$). Model explaining 81.6% of the TD variability included Lys50t0 ($\beta = -0.55, p = 0.003$), E selectin ($\beta = -0.44, p = 0.014$) and fibrinogen ($\beta = -0.49, p = 0.017$). SEM revealed denser fibrin clots with thinner fibres in group experienced new DU compared to clots formed in plasma of patient without DU.

Conclusion: Our results provide evidence that impaired fibrinolysis has critical role in the progression of microvascular disease, identifying clot lysis time as a strong predictor in the onset of new digital ulcers in Systemic sclerosis. The higher level of E selectin and the longer lysis time are, the shorter is time until the onset of new digital ulcer. These results could be used in selection of patients at high risk of developing recurrent digital ulcer and therefore allow earlier therapeutic intervention.

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Figure 1. SEM images of fibrin network in 1 representative sample from a SSc patient with (A) and 1 from patient without (B) new DU onset

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POS0875

MYOSITIS-SPECIFIC ANTIBODIES IN A RETROSPECTIVE SINGLE-CENTER OBSERVATIONAL STUDY

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Background: Myositis-specific antibodies (MSA) are highly specific and useful to classify patients as having syndromes with distinct clinical features and prognosis. MSA are almost always mutually exclusive and quite specific, adding value as a useful biomarker for diagnosis. Although individual autoantibodies aren't sensitive enough to detect the full spectrum of idiopathic inflammatory myopathies (IIM), the sensitivity of a myositis panel is increasing as more autoantibodies are discovered, and as better assays become available.

Objectives: We aimed to analyze the usefulness of a myositis-specific immunoblot for the diagnosis of IIM in a hospital cohort from January 2019 to December 2020. We also seek to correlate immunological findings with the risk of associated interstitial lung disease (ILD), cancer, or death.

Methods: Retrospective single-center observational study conducted in a Spanish tertiary hospital. In patients with high clinical suspicion of IIM, a myositis immunoblot was performed including Jo1, PL-7, PL-12, EJ, SRP, Mi2, Ku, MDA-5, TIF1- γ , HMGCR, PM-Scl and Ro52 antibodies. The demographic characteristics, the risk of ILD, cancer and death were analyzed.

Results: In a cohort of 313 patients with high suspicion of IIM, 87 patients (27.8%) presented a positive MSA (MSA+ve). The mean age at diagnosis was 56.7 ± 16.9 years, with no significant differences between MSA+ve and MSA-ve ($p=0.597$). Most of the patients were women with significant differences between both groups (80.5% MSA+ve vs 68.1% MSA-ve, $p=0.030$).

IIM were classified as antisynthetase syndrome (ARS) (38%), dermatomyositis (DM) (31%), overlap myopathy (OM) (16.9%) and necrotizing myopathy (NM) (14.1%) according to the manifestations and MSA found (Jo1, PL-12, PL-7, EJ in ARS; Mi-2, MDA-5 and TIF1- γ in DM; Ku and PM-Scl in OM; HMGCR and SRP in NM). The most frequent MSA were anti-Jo1 (16.9%), TIF1- γ (15.5%), Ku (12.7%), Mi-2 (9.9%), PL-7 (9.9%), HMGCR (8.5%), PL-12 (7%), MDA-5 (5.6%), SRP (5.6%) and EJ (4.2%). The presence of Ro52 associated with other MSA was found in 20 patients (22.9%).

ILD was the most frequent manifestation (45.2% of the MSA+ve). Non-specific interstitial pneumonia (NSIP) was the most frequent ILD (39.5%), followed by usual interstitial pneumonia (34.2%). The main risk factors associated with IIM-ILD were some subtypes of the MSAs ($p<0.001$), the association of Ro52 ($p<0.001$), and older age ($p=0.027$). Among the IIM, ARS and OM ($p<0.001$) were more frequently associated with IIM-ILD. The MSAs most associated with IIM-ILD were Jo1, PL-7, PM-Scl, Ku and SRP ($p<0.001$).

Cancer was found in 9.6% of MSA+ve patients. The most frequent tumors were gynecological (37.5%), followed by gastrointestinal (25%) and breast cancer (12.5%). Factors associated with cancer were age ($p=0.010$), TIF1- γ ($p<0.001$), SRP ($p=0.004$), PL-12 ($p=0.013$), PL-7 ($p=0.047$) and HMGCR ($p=0.027$).

The mortality of these patients was 3.5%. There were no differences regarding MSA+ve/-ve ($p=0.911$). However, MDA-5 ($p=0.033$) and older age ($p=0.001$) were associated with higher mortality. There were no significant differences between the IIM classifications, the associated SAD, the presence of cancer or ILD. However, longer follow-up periods and future studies are necessary to confirm these results.

Conclusion: The use of a myositis blot allowed classifying, stratifying the risk of ILD, the risk of cancer and the risk of mortality in IIM. IIM-ILD was the most frequent complication, usually manifested as NSIP. The associated risk factors were ARS, OM, some MSAs, Ro52+ and older age. Cancer was a serious and frequent manifestation in these patients, especially in patients with TIF1- γ and other MSAs, so it is essential to know the risk factors and perform an early screening, especially in older patients.

A better knowledge of the serological profiles of IIM will provide more individualized approaches and better risk stratification, helping in the management and treatment of these patients.

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POS0876 SARCOPENIA IN MYOSITIS PATIENTS: A MARKER OF MUSCLE DAMAGE ASSOCIATED WITH HANDICAP

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Background: Myositis are systemic autoimmune rare diseases characterized by muscle inflammation and weakness. Even though the signs of active disease

have been resolved, myositis patients frequently present residual muscle weakness, decreased physical performance and sustained disability. This condition has been coined on the term "damage" (as opposed to "activity").

Sarcopenia is a frequent, progressive and generalized skeletal muscle disorder characterized by low muscle strength and mass leading to handicap, decreased quality of life and increased mortality.¹

Prevalence and significance of sarcopenia in myositis patients has never been reported.

Objectives: To study sarcopenia in myositis patients with low or no disease activity.

Methods: Adult myositis patients (2017 ACR/EULAR criteria), with disease duration greater than 12 months, creatine kinase serum level (CK) less than 500 U/L, stable medication for 6 months were enrolled. Patients with inclusion body myositis were excluded. Total (LM) and appendicular (ALM) muscle mass were measured using dual-energy X-ray absorptiometry (DXA, Hologic) and muscle grip strength was measured using Jamar dynamometer. Sarcopenia was defined according to the EWGSOP2 consensus.¹

Results: 29 patients (20 female, 68.9%), with a median age of 61 years (50.5-71) were enrolled. They suffered from dermatomyositis (DM, n=4), immune-mediated necrotizing myopathy (IMNM, n=8), anti-synthetase syndrome (ASS, n=9), scleromyositis (SM, n=8) since 4.7 years (2.8-8.3). At the evaluation, muscle strength assessed with MMT-8 was 139/150 (136-147), MMT-12 was 210/220 (204-216) and CK were 131.5 U/L (105.5-202). Four patients (13.8%) were sarcopenic. Sarcopenic patients were older (73.4 years (66.2-80.5) vs 58.7 years (44.2-79.6), $p=0.03$), with a longer disease duration (7.3 years (5.3-11.8) vs 4.3 (2.7-8.3), $p=0.1$), longer time with increased CK (449 days (169.8-954) vs 255.5 (124-872.8)), higher maximum CK values (6000 U/L (2205-7000) vs 1636 (900-4457)). They suffered from IMNM (2/4, 50%); DM (n=1) and SM (n=1), had more frequently disease-related cardiac involvement (50% vs 4%, $p=0.04$), and tended to a longer steroid therapy duration (2.4 years (0.8-5) vs 1.8 (1.3-3.9), $p=0.9$) and a higher number of immunomodulatory drugs (2.5 (2-5.3) vs 2 (2-3), $p=0.3$).

At the evaluation, sarcopenic patients were globally weaker as highlighted by lower MMT-12 (201 (196.8-206.8) vs 213 (207-217.5), $p=0.02$). Head flexo-extensors and proximal upper muscles were especially weaker (respectively, $p=0.04$ and $p=0.03$). Muscle performance was also lower in sarcopenic patients as assessed by distance covered at 6-minute walk test (6mWT, $p=0.003$) and number of squats in 30 seconds ($p=0.005$). Time to drink a glass of water was significantly longer in sarcopenics ($p=0.04$) even if any patient referred dysphagia. Health assessment questionnaire score was greater (1.4 (0.8-2) vs 0.6 (0.2-1), $p=0.04$) indicating higher handicap. LM positively correlated with MMT-8 ($p=0.5$, $p=0.01$) and MMT-12 ($p=0.5$, $p=0.004$), with number of squats in 30 seconds ($p=0.7$, $p=0.0003$) and 6mWT distance covered/lower limit ($p=0.5$, $p=0.01$). Moreover, LM negatively correlated with time to drink a glass of water ($p=0.6$, $p=0.002$).

Conclusion: Muscle mass measured by DXA is a relevant parameter for muscle damage and disability in myositis patients. Sarcopenic myositis patients represent a subgroup with important muscle damage and handicap.

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POS0877 THE EFFECT OF PLATELET INHIBITORS ON DIGITAL ULCERS IN SYSTEMIC SCLEROSIS - A DERIVATION AND VALIDATION EUSTAR STUDY

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