± 0.2 vs 0.3 ± 0.2). Fifteen/20 (75%) had an abnormal ($<90\%$ within 10 sec) esophageal emptying activity. Percentage of esophageal emptying activity negatively correlated with reflux score ($r = -0.52$, $p = 0.02$) while it did not correlate with the other items scales and the total UCLA SCTC_GIT 2.0 score ($p > 0.05$).

Conclusion: SSc patients with impaired esophageal scintigraphy findings have a higher GIT2 reflux score. The lack of correlation with UCLA SCTC_GIT 2.0 total score may be related to the composite nature of the score capturing overall GI disease aspects. The UCLA SCTC_GIT 2.0 is a complementary tool for objective measurement of esophageal involvement which can be easily administered in day-to-day clinical assessment. A larger number of SSc patients is needed to confirm these preliminary findings.

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FRI0311

PREVALENCE AND CLINICAL MANIFESTATIONS OF ERASMUS SYNDROME IN SYSTEMIC SCLEROSIS: A CROSS-SECTIONAL STUDY

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Background: Erasmus syndrome (ErS) is defined by the association of exposure to silica with the subsequent development of systemic sclerosis (SSc), with or without associated silicosis.

Objectives: The objectives of this study were, on one hand, to evaluate the prevalence of ErS in a population of SSc patients and to characterize the cases and, on the other hand, to evaluate the clinical and laboratory characteristics of SSc patients with or without exposure to silica.

Methods: We performed a cross-sectional study of the patients with SSc in our department. Demographics, clinical and laboratory data were collected from all patients with SSc diagnosed according to ACR/EULAR criteria. Moreover, a telephone call was made in order to detail the professional activity and possible exposure to silica.

Results: The prevalence of ErS in this population was 15.3% (9/59). All cases identified were male, corresponding to 75% of men with SSc followed at our department. There was a statistically significant association between ErS and male gender ($p < 0.001$), initial pulmonary manifestation ($p = 0.025$), history of digital ulcers ($p = 0.014$) and smoking ($p = 0.047$). On the other hand, a lower risk of gastrointestinal involvement was found in ErS cases ($p = 0.008$). All patients with ErS had positive autoantibodies (mainly anti-Scl70 and anti-centromere) with titers tending to be higher than SSc without ErS, although without statistically significant differences. In addition, although with no statistical significance, we found that pulmonary artery systolic pressure (PASP) estimated by echocardiogram was higher in patients with ErS.

Conclusion: In our study, prevalence of ErS was higher than data from previously published literature. For a more accurate ErS diagnosis it is necessary to be aware of and investigate less intense silica exposures, which may have occurred many years before diagnosis. Statistically significant differences were found between ErS and SSc without exposure to silica; this fact may have impact in diagnosis, treatment and prognosis.

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FRI0312

HYDROXYCHLOROQUINE SIGNIFICANTLY REDUCES SERUM MARKERS OF ENDOTHELIAL INJURY AND NEMO VIDEOCAPILLAROSCOPY SCORE IN SYSTEMIC SCLEROSIS: A 3-MONTHS PROSPECTIVE OBSERVATIONAL STUDY

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Background: The most-commonly postulated model of disease progression in Systemic sclerosis (SSc) is based on the interplay between endothelial damage and tissue repair. Hydroxychloroquine (HCQ) is commonly used in systemic sclerosis (SSc) for the management of joint involvement [1]. In addition, HCQ showed to exert a protective role on endothelial dysfunction in several pathologic conditions [2] but no data exist in SSc.

Objectives: aim of our study was to assess the effect of 3-months HCQ administration on serum levels of markers of endothelial injury and microvascular changes, assessed with NEMO score.

Methods: 20 SSc patients considered for treatment with HCQ 400 mg/day and 16 SSc patients not treated with HCQ were consecutively recruited, having clinical assessment, blood samples and nailfold capillaroscopy (NVC) at recruitment and after 3 months. Median age was 51.5 (19.5). Median onset of Raynaud's phenomenon was 83 (66) months. 29 patients had ISSc and 7 patients dSSc. Both groups had comparable vasoactive drugs, disease activity, duration and subtype. Any kind of overt vasculopathy was an exclusion criteria. The NEMO score was calculated as the total number of micro-haemorrhages (MHE) and microthrombosis (MT) and the giant capillaries (GC) score was calculated as the total number of GC [3]. Serum E-selectin, Endothelin-1 (ET-1), Vascular cell adhesion molecule-1 (VCAM-1), vascular endothelial growth factor (VEGF-A) levels were assayed by Magnetic Luminex Assay, Human Premixed Multi-Analyte Assay (R&D Systems). Plasma dimethyl arginine (ADMA) levels were determined by competitive ELISA (DLD Diagnostica GmbH). Data were assessed with SPSS software version 25.0 and expressed as median and interquartile range. Wilcoxon rank-sum test, Mann-Whitney U test and Fisher's exact test were used for statistical evaluation. P values < 0.05 were considered significant.

Results: in the group treated with HCQ serum levels of E-Selectin (35.28 (16.88) ng/ml vs 30.84 (12.60) $p = 0.004$), VCAM-1 (847.30 (344.85) ng/ml vs 761.55 (396.87) $p = 0.014$) and ET-1 (12.25 (5.53) pg/ml vs 10.94 (4.35) pg/ml ($p = 0.022$) decreased significantly, as well as NEMO Score (7.5 (11.25) vs 6.5 (8) $p = 0.001$), MHEs (6 (7) to 5 (5.75) $p = 0.003$) and MTs (1 (4.5) to 0.5 (2) ($p = 0.003$)). VEGF-A ($p = 0.68$), ADMA ($p = 0.91$) and GCs ($p = 0.30$) were unaffected. No significant improvements were observed among patients not treated with HCQ.