AB0759 THE ASSESSMENT OF GASTROINTESTINAL TRACT INVOLVEMENT THROUGH UCLA SCTC GIT 2.0 QUESTIONNAIRE IDENTIFIES SCLERODERMA PATIENTS WITH REDUCED BONE MINERAL DENSITY

G. Natalello, E. De Lorenzis, G.B. Canestrari, L. Gigante, L. Verardi, L. Mirone, S. L. Bosello, G. Ferraccioli, E. Gremese. *Rheumatology Unit, Fondazione Policlinico Universitario A. Gemelli – Catholic University of the Sacred Heart, Rome, Italy*

Background: Gastrointestinal (GI) symptoms are seen in majority of patients with Systemic Sclerosis (SSc) and are a common presenting feature of disease. Severe GI involvement may lead to malabsorption which represents a poor prognostic factor. Accordingly, a regular monitoring of gastrointestinal tract involvement and nutritional status appears crucial in SSc patients. Previous studies reported low values of bone mass density (BMD) in SSc patients[1]. While no specific relationship has emerged between the two conditions, it's likely that disease related GI involvement may contribute to the alterations in BMD.
Objectives: To determine if GI-related clinical status was associated to low bone density in our cohort of SSc patients.
Methods: Two-hundred-ten unselected SSc patients have been enrolled. The 7-items UCLA SCTC GIT 2.0 questionnaire and Malnutrition Universal Screening Tool (MUST) were administered to each patient. A comprehensive medical history was collected. A blood panel for nutritional status was also performed. T-scores and Z-scores at lumbar spine, femoral neck, Ward's and total hip measured by dual-energy X-ray absorptiometry (GE Lunar Prodigy) were measured.
Results: In our cohort, 86.7% of patients reported some GI symptoms. The mean UCLA GIT total score was 0.345±0.34 and 51 patients (24.3%) were at risk of malnutrition according to MUST (score $\geq$1). 53.7% patients had BMD values<1, and 12.5% had BMD values≤ -2.5 at any of the considered sections. Patients with reduced BMD (<-1) showed similar levels of selected nutritional blood markers compared to subjects with normal BMD, including vitamin D and albumin.
Patients with spine T-score <-1 had lower BMI (23.2±3.9 vs 25.2±4.8; p=0.011) and reported higher UCLA GIT reflux (0.66±0.63 vs 0.42±0.48; p=0.016), distention (0.80±0.72 vs 0.53±0.56; p=0.15) and total score (0.42+0.37 vs 0.27±0.30; p=0.006) compared to patients with normal BMD. Similar significant differences were observed in the same domains for patients with total hip T-score values <-1.
Femoral neck T-score <-2.5 was associated with higher UCLA GIT reflux (0.88 ±0.78 vs 0.48±0.50; p=0.022), soilage (0.50±0.78 vs 0.14±0.52; p=0.041) and total score (0.50±0.37 vs 0.31±0.33; p=0.012).
On the other hand, the comparison of patients with severe, moderate and mild symptoms according to UCLA GIT total score[2] showed an association between progressively lower values of spine and total hip T-score and increasing severity of GI symptoms (ANOVA for spine T-score: p=0.015; for total hip T-score: p=0.048).
Patients at risk of malnutrition (MUST score $\geq$1) presented significant lower T-score for all the considered sections (spine and hip) and significant lower total hip Z-score.
Conclusions: In our SSc cohort gastrointestinal symptoms were frequent and were associated with low BMD. Considering the heterogeneity of GI involvement, UCLA SCTC GIT 2.0 emerged as a useful and feasible tool to assess GI involvement and other associated comorbidities. In particular, SSc patients who report remarkable GI symptoms and are at risk of malnutrition according to MUST may benefit from a stricter control of BMD to promptly detect osteopenia and osteoporosis.

REFERENCES:

[1] Omair MA, et al. J Rheumatol. 2013
[2] Khanna D, et al. Curr Opin Rheumatol. 2013

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.7311

AB0760 ADVANCED OXIDATION PROTEIN PRODUCTS IN SERUM OF PATIENTS WITH SYSTEMIC SCLEROSIS: A POSSIBLE INDICATOR OF CLINICAL EVOLUTION

G. Sighinolfi, M. Colaci, A. Spinella, F. Lumetti, E. Artoni, C. Salvarani, D. Giuggioli. *Chair and Rheumatology Unit, University of Modena and Reggio Emilia, Policlinico of Modena, Modena, Italy*

Background: Systemic sclerosis (SSc) is a chronic, multisystem connective tissue disease characterised by by immune dys-regulation, obliterative microvasculopathy and fibrosis. Endothelial dysfunction, immune system imbalance and fibroblast activation constitute the three major factors of the pathogenetic process. In this context, oxidative stress could play a significant role through direct damage of endothelial cells and the persistent activation of the immune system.[1,2]
Objectives: This study investigated the presence of advanced protein oxidation products (AOPP) in serum of patients with SSc and its correlation with disease's features.
Methods: 50 patients with SSc (M:F 1:7, mean age 57.3±11.2 SD, mean duration of disease 10±9.1 SD years), were screened for AOPP in the serum, using the AOPP OxiSelect Kit of CELL BIOLABS (San Diego, Ca, USA). Among 50 SSc patients, 39 had limited cutaneous subset, while 11 had the diffuse one. Anamnestic and clinical data were collected for all SSc patients. As a control group 50 consecutive healthy subjects, sex and age matched, were recruited.
Results: We found serum levels of AOPP increased in the SSc group compared with the controls (p<0.0001) with mean values of 336.9±167.8 mmol/L and 167.5 ±59.2 mmol/L, respectively. In addition, higher levels of AOPP directly correlated with the diffuse cutaneous subset (p=0.0242), presence of digital ulcers (p=0.005), esophagopathy (p=0.006) and pulmonary fibrosis (p=0.0128).
Conclusions: Serum AOPP levels are significantly higher in patients with SSc than in controls. In addition, the correlations of AOPP with SSc diffuse cutaneous subset, digital ulcers, and pulmonary involvement (indicative of progressive disease and worse prognosis) suggest a possible role of this marker in the identification of the cases with worse clinical evolution. The data of this preliminary study should be confirmed on larger case series and analysed in prospective studies, in order to understand its eventual usefulness during the follow-up of SSc patients.

REFERENCES:

[1] Ferri C, Valentini G, Cozzi F, Sebastiani M, Michelassi C, La Montagna G, et al. Systemic Sclerosis: Demographic, Clinical, and Serologic Features and Survival in 1,012 Italian Patients. Medicine (Baltimore). 2002; 81:139–153
[2] Steen VD. The many faces of scleroderma. Rheum Dis Clin North Am. 2008; 34:1–15

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.6809

AB0761 FOLLOW-UP OF NAILFOLD MICROVASCULAR DAMAGE IN MIXED CONNECTIVE TISSUE DISEASE VERSUS SYSTEMIC SCLEROSIS PATIENTS

G. Ferrari, A. Sulli, C. Pizzorni, M. Ghio, M. Patanè, S. Paolino, A.C. Trombetta, M. Cutolo. *Research Laboratory and Academic Division of Clinical Rheumatology, Department of Internal Medicine, University of Genova, San Martino Polyclinic Hospital, GENOA, Italy*

Background: Nailfold videocapillaroscopy (NVC) is a non invasive diagnostic technique useful for evaluating microvascular status in patients with connective tissue diseases.[1] In systemic sclerosis (SSc) capillary abnormalities, when evaluated by NVC, evolve in a clearly defined sequence called the "scleroderma patterns" (Early, Active, Late).[2] On the contrary, mixed connective tissue disease (MCTD) doesn't show characteristic either nailfold capillary abnormalities or typical sequence.[1,2] Until today, few studies described the main NVC changes in MCTD.[3]
Objectives: To retrospectively study nailfold microangiopathy by NVC in MCTD patients with a follow-up of three years and to compare capillaries abnormalities between patients affected by MCTD and SSc.
Methods: Ten patients (mean age 50±19 years) affected by MCTD with Raynaud phenomenon (Kasukawa's criteria)[4] who performed their first NVC were enrolled. Among these, complete capillaroscopic and clinical data at three years were available for 7 patients (disease duration 6.4±4.2 years). Main NVC parameters (absolute number of normal and total capillaries and scores of capillary ramifications, enlarged capillaries, giant capillaries, microhemorrhages, number of capillaries) were evaluated by NVC at baseline (T0, first NVC), and after one (T1) and three years (T3). Possible variations of capillary findings were analysed, along with correlations among capillaroscopic and clinical parameters. Furthermore, we compared main NVC parameters at T0 of ten above-mentioned MCTD patients versus ten random SSc patients with the same disease duration (6.4±4.2 years) and similar age (51±17 years). Statistical analysis was performed by non parametric tests. The patients were receiving different immunosuppressive treatments.
Results: No statistically significant variation of the scores as well as of the absolute value of the above reported capillary parameters was observed during the 3 years of follow-up. No statistically significant correlation was observed between capillary parameters and MCTD clinical aspects (Raynaud phenomenon, dysphagia, dyspnoea, sclerodactily, sicca syndrome, telangiectasies and arthralgia) at first visit and during follow-up. The scores of enlarged capillaries and giant capillaries were found significantly higher (p<0.05) in patients with SSc versus MCTD patients at T0. Moreover, the absolute number of total capillaries and normal capillaries were found significantly lower (p<0.05) in SSc patients versus MCTD patients. On the contrary, no statistically significant difference was observed for