United Therapeutics. DK is chief medical officer of Eicos Sciences, Inc., Elizabeth Volkmann Consultant of: Boehringer Ingelheim, Grant/research support from: Corbus, Forbius, Boehringer Ingelheim, Oxyvid Midvidt Shareholder of: Son of owner of ACIM., Henriette Dridikken Speakers bureau: Travel bursary - GSK, Alvide Dhainaut: None declared, Anna-Kristine H Halse: None declared, Gunnstein Bakland: None declared, Inge Christoffer Olsen: None declared, GSK, Alvilde Dhainaut: None declared, Anna-Kristine H Halse: None declared, Son of owner of ACHIM., Henriette Didriksen Speakers bureau: Travel bursary - from: Corbus, Forbius, Boehringer Ingelheim, Øyvind Midtvedt Shareholder of: M. M. Sirufo1,2, M. De Martinis1, L. Ginaldi1, 1Department of Life, Health & Environmental Sciences, University of Aquila, Italy; Allergology and Clinical Immunology Unit, AUSL 04, Teramo, Italy, 2Department of Life, Health & Environmental Sciences, University of Aquila, Italy; Allergology and Clinical Immunology Unit, AUSL 04, Teramo, Italy, Teramo, Italy

Background: Systemic Sclerosis (SSc) is a generalized and systemic autoimmune disease that affects the connective tissue of the skin and internal organs, especially kidneys, heart and lungs [1].

Objectives: Numerous data from recent literature confirm the regulatory action of vitamin D on the immune system and, therefore, how a deficit of this micronutrient can lead to alterations in the immune response, as is known to happen in many allergic and autoimmune diseases [2]. We studied the association between vitamin D levels and SSc, evaluating their correlation with the characteristic manifestations of the pathology.

Methods: We dosed the serum levels of 25 hydroxy-vitamin D in 42 patients with SSc (average age 64.63 +/- 7.23) and 40 healthy controls for sex and age. The diagnosis of SSc was formulated in accordance to 2013 ACR/EULAR criteria. None of the subjects involved in the study took vitamin D products.

Results: Patients' vitamin D levels (26.22 +/- 9.82 ng/ml), although they tended to be lower than controls (27.80 +/- 16.53 ng/ml), showed no significant difference. In patients with pulmonary fibrosis, vitamin D levels were 23.28 +/- 12.30 lower than in patients with trophic ulcers and compared to patients without complications 26.07 +/- 9.92, although with not statistically significant values. No statistically significant difference was found between vitamin D levels in patients with trophic ulcers compared to controls without complications.

Conclusion: According to the studies in the literature, in our sample, vitamin D deficiency was therefore greater in patients with SSc, especially with pulmonary fibrosis, than in controls [3,4]. Vitamin D levels in diffused-type SSc patients were significantly lower than those in limited-type SSc patients. Further studies are needed to clarify the role that vitamin D deficiency plays in SSc, but lower vitamin D levels in these patients may suggest the need to monitor blood levels of vitamin D and supplement it appropriately.

REFERENCES:

Background: Systemic sclerosis is associated with increased risk of cardiovascular disease (CVD) [1] and studies using MRI suggest that microvascular disease has an important role (2). Capillaroscopy is a non invasive and safe technique that assesses peripheral microvascular damage (3).

Objectives: The objective of this study was to evaluate the predictive value of the capillaroscopy in relation to major adverse cardiovascular events (MACE).

Methods: Retrospective study with three timepoints (at baseline, at 5 and 10 years) including patients with sclerodermia from EUSTAR center 096. Data were collected from the registry and observation papers. We performed capillaroscopy to all patients at the time of inclusion in the EUSTAR registry (2004) and at baseline (2009). Also, CV risk scores were calculated at baseline and were reassessed at 5 and at 10 years using the SCORE calculator. Risk score was considered low if it was between 0 and 2, and high 9-10. The relation between capillaroscopy and MACE was tested in using binary logistic regression.

Results: Of 22 patients, mean (standard deviation (SD)) age was 43.1 (11.5), all patients were females, mean (SD) disease duration was 5.4 (4.5). During the 10 years of follow up, 5 (22.7) patients had been lost of follow up and 8 (36.4) patients had died. Only 9 (40.9) patients completed the 10 year follow up. At the time of inclusion in the EUSTAR, one patient showed early scleroderma pattern at capillaroscopy, 15 had active pattern and 6 patients had late pattern. Capillaroscopy scoring showed 2 (9.1) patients with a higher risk score (>50% aspect, 5 (22.7) patients with a low (5-25%) aspect, 4 (18.2) patients with local paucity, 10 (45.5) patients with enlarged loop bordering local paucity and 1 patient (4.5) with complete paucity. Capillaroscopy at baseline showed active pattern in 4 patients and late pattern in 18 patients. Thus, 13 (59.1) of patients had a progression of the disease at capillaroscopy before follow up.

Conclusion: Patients with systemic sclerosis are at high risk of MACE and traditional CV risk scores underestimate this risk. Changes/progression on capillaroscopy is not predictive for MACE. However, this hypothesis needs to be tested on a bigger cohort.

REFERENCES: