The frequency of RP attacks was detected more than once a day in 44 (42%) patients. In 73% of cases, RP did not show signs of deep digital ischemia. Digital ulcers (active) were observed in 13 (12.3%) patients, fractures in a finger area – 23 (21.9%), digital scars – 15 (14.2%), phalange amputations – 7 (6.6%).

Conclusion: Patients with RD and secondary RP most often have SSC (55%), less often – SLE (17%), RA (6%), DM (3%). In SSC and SLE patients, Raynaud's reddening of fingers to cold is less common than in other RD. In SSC, two-/three-phase changes of fingers color in the cold are more frequent than single-phase changes. In SLE, fingers turn blue in the cold more often than in SSC.

References:

- [1] Prete M, Fatone MC, Favoino E, Perosa F. Raynaud's phenomenon: from molecular pathogenesis to therapy. *Autoimmun Rev* 2014;13:655–67.
- [2] Linnemann B, Erbe M. Raynaud's phenomenon – assessment and differential diagnoses. *Vasa* 2015;44:166–77.
- [3] Heidrich H, Helms J, Fahrigr C, Hovelmann R, Martini N. Clinical characteristics of primary, secondary and suspected secondary Raynaud's syndrome and diagnostic transition in the long-term follow-up. A retrospective study in 900 patients. *Vasa* 2008;37 (Suppl. 73):3–25.
- [4] Pavlov-Dolijanovic S, Damjanovic NS, Vujasinovic Stupar NZ, Radunovic GL, Stojanovic RM, Babic D. Late appearance and exacerbation of primary Raynaud's phenomenon attacks can predict future development of connective tissue disease: a retrospective chart review of 3035 patients. *Rheumatol Int* 2013;33:921–6.

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AB0577

ENDOTHELIAL DYSFUNCTION AND ATHEROSCLEROSIS IN SYSTEMIC SCLEROSIS: A MULTIPARAMETRIC ANALYSIS USING IMAGING TECHNIQUE AND LABORATORY MARKERS OF INFLAMMATION AND VASCULAR FUNCTION: SCLERODERMA CV RISK STUDY

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Background: Systemic sclerosis (SSc) patients have an increased risk for atherosclerotic cardiovascular disease (CVD), possibly mediated by inflammatory and fibrotic mechanisms¹. However, pathogenesis of accelerated atherosclerosis in SSc remains to be elucidated. Endothelial dysfunction is the key initial event in atherosclerosis. Predictors for rapid evolution of cardiovascular complications would be highly desirable for CV risk stratification. This study aims to assess endothelial function and atherosclerosis in SSc, in context of markers of inflammation and vascular function in SSc patients.

Objectives: To assess endothelial function and atherosclerosis in SSc in context of markers of inflammation and vascular function in SSc patients.

Methods: A cross-sectional study was performed in 20 SSc patients meeting the 2013 European League Against Rheumatism (EULAR) and American College of Rheumatology (ACR) classification criteria and 18 healthy controls matched for age and sex. Flow-mediated dilatation (FMD) assessed by AngioDefender and CIMT measured ultrasonographically. Disease-specific measures included: Disease duration, Modified Rodnan Skin Score (mRSS), EUSTAR activity score in SSc. We also assayed markers of inflammation, including C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), proinflammatory cytokines (interleukin IL-1, IL-6, and IL-17), and endothelial dysfunction including lipids, serum nitrite and TBARS (marker of oxidative stress). Quality of life measured by Scleroderma Health Assessment Questionnaire (SHAQ).

Results: FMD is significantly lower in SSc patients compared with controls (6.13±0.35% vs. 9.12±0.25%, p≤0.05). CIMT is significantly higher in SSc patients compared with controls (0.071±0.04cm vs. 0.035±0.02cm p≤0.05). Compared with controls, SSc patients had significantly (p≤0.05) elevated mRSS, EUSTAR score, ESR, CRP, IL-1, IL-6, IL-17, nitrite, TBARS and SHAQ whereas HDL levels are significantly reduced in SSc compared with controls (p≤0.05). In SSc, FMD inversely correlated with EUSTAR score, mRSS, IL-6 (Fig. 1A), serum

nitrite (Fig. 1B), TBARS (Fig. 1C) and CIMT (Fig. 1D). CIMT positively correlated with age (Fig. 2A), disease duration, CRP (Fig. 2B) and IL-17 (Fig. 2C) and inversely correlated with HDL (Fig. 2D) (p<0.05).

Conclusion: In the present study, FMD and CIMT are impaired in SSc, indicating endothelial dysfunction and accelerated atherosclerosis, respectively. EUSTAR score, mRSS, IL-6, serum nitrite, CIMT and TBARS predicted endothelial dysfunction. Age, disease duration, CRP, IL-17, HDL and impaired FMD predicted accelerated atherosclerosis. SSc-related inflammatory mechanisms (IL-6, IL-17) and markers of vascular function (CRP, serum nitrite and TBARS) may all be involved in the development of vascular disease in SSc. Cytokine-triggered inflammation mediated by nitrite and TBARS is associated with endothelial dysfunction and accelerated atherosclerosis in SSc. These markers would possibly serve as predictors of endothelial dysfunction and atherosclerosis and more importantly therapeutic targets to prevent premature atherosclerosis and cardiovascular disease in SSc.

References:

- [1] Pagkopoulou E, Poutakidou M, Garyfallos A, Kitas G, Dimitroulas T. Cardiovascular risk in systemic sclerosis: Micro- and Macro-vascular involvement. *Indian Journal of Rheumatology* 2017;12:S211-7.

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AB0578

LONG-TERM TOLERABILITY OF AMINAPHTONE IN A COHORT OF SYSTEMIC SCLEROSIS PATIENTS IN CONCOMITANT STANDARD THERAPY

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