Figure. Absolute change from baseline in FVC (mL) at week 52 in subjects in the SENSICIS trial versus hypothetical reference subjects without ILD matched for age, sex, ethnicity and height.

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POS0836

CONDUCTION AND RHYTHM DISORDERS AMONG PATIENTS WITH SYSTEMIC SCLEROSIS: A US POPULATION BASED STUDY

Y. Radwan^{1,2}, R. Kurmann³, E. El-Am³, A. Sandhu², C. S. Crowson^{2,4}, E. Matteson², T. G. Osborn², K. J. Warrington², R. Mankad³, A. Makol².

¹Michigan State University, Department of Internal Medicine, Lansing, United States of America; ²Mayo Clinic, Division of Rheumatology, Rochester, United States of America; ³Mayo Clinic, Department of Cardiovascular Disease, Rochester, United States of America; ⁴Mayo Clinic, Department of Health Sciences Research, Rochester, United States of America

Background: Systemic sclerosis (SSc) can impact multiple areas of the heart through fibrotic and vascular processes; leading to variable cardiac involvement

including electrocardiogram (ECG) abnormalities. Conduction and rhythm disorders are associated with worse prognosis in patients with SSc. (1, 2)

Objectives: To study the incidence, risk factors and outcomes of conduction and rhythm disorders in a US population-based cohort of patients with SSc and non-SSc comparators from the same geographic area.

Methods: A previously identified incident cohort of SSc patients (1980-2016) in a well-defined geographic area was compared to a randomly selected 2:1 cohort of age- and sex-matched non-SSc subjects from the same population base. Demographics, disease characteristics, cardiovascular risk factors and laboratory tests were abstracted by manual record review. ECGs and Holter ECGs were reviewed to determine the occurrence of any conduction or rhythm abnormalities. The need for cardiac interventions was also abstracted.

Results: 78 incident SSc cases and 156 non-SSc comparators were identified [age 56 years± 15.7, 91% female]. Prevalence of any conduction disorders before SSc diagnosis compared to non-SSc comparators was 15% vs. 7% (p=0.06), and any rhythm disorder was 18% vs. 13% (p=0.33). During a median follow up of 10.5 years in patients with SSc and 13.0 years in non-SSc comparators, conduction disorders developed in 25 SSc patients with a cumulative incidence (ci) of 20.5% (95% CI: 12.4-34.1%) compared to 28 non-SSc patients with ci of 10.4% (95% CI: 6.2-17.4%) (HR: 2.57; 95% CI: 1.48-4.45), while rhythm disorders developed in 27 SSc patients with ci of 27.3% (95% CI: 17.9-41.6%) vs 43 non-SSc patients with ci of 18.0% (95% CI: 12.3-26.4%) (HR: 1.62; 95% CI: 1.00-2.64). (Figure 1).

Conduction disorders in patients with SSc during follow up included: 1st-degree atrioventricular block (AVB) (n=12), 2nd-degree AVB (n=1), 3rd-degree AVB (n=1), right bundle branch block (n=10), left bundle branch block (n=4), bifascicular block (n=6), and prolonged-QT (n=13). Rhythm disorders included: atrial fibrillation (n=10), atrial flutter (n=4), supraventricular tachycardia (n=4), ventricular tachycardia (n=1), and premature ventricular contractions (n=16).

Pulmonary hypertension (PHT) was the only significant risk factor identified for development of both conduction and rhythm disorders (HR=8.38, 95% CI: 1.32-53.40 and HR=8.07, 95% CI: 1.60-40.74, respectively). Current smoking significantly increased the risk for development of rhythm disorders (HR=2.91, 95% CI: 1.19-7.12). Conduction and rhythm disorders were associated with increased mortality among patients with SSc (HR=7.60, 95% CI: 3.49-16.55 and HR=4.87, 95% CI: 2.28-10.42, respectively, after adjusting for age, sex and calendar year of diagnosis).

Conclusion: Patients with SSc have a significantly higher prevalence of conduction disorders at disease onset than non-SSc comparators. During the course of their disease, their risk of developing conduction disorders is 2.6-fold, and risk of rhythm disorders is 1.6-fold increased, compared to non-SSc subjects.

PHT was significantly associated with increased risk of developing conduction and rhythm disorders among patients with SSc, a finding that should warrant increased vigilance and screening for ECG abnormalities in this population.

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Figure 1. Cumulative incidence of any conduction or any rhythm disorder in SSc (solid line) vs non-SSc comparators (dashed line).

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POS0837

THE USE OF CANNABIDIOL IN THE TREATMENT OF PAIN RELATED TO SCLERODERMA DIGITAL ULCERS

D. Giuggioli¹, M. De Pinto¹, L. Parenti¹, L. Magnani², P. Castrignano¹, C. Salvarani^{1,2}, A. Spinella¹. ¹University of Modena and Reggio Emilia, Scleroderma Unit, Rheumatology Unit, Modena, Italy; ²AUSL-IRCCS of Reggio Emilia, Italy, Rheumatology, Reggio Emilia, Italy

Background: Systemic Sclerosis-SSc is an autoimmune disease, characterized by fibrosis due to immune-mediated microangiopathy. Digital ulcers-DUs represent frequent complications, they are recurrent, painful and often resistant to traditional treatments. Standard therapy, in particular oral opioids, is often