contributing to disease activity were gastric involvement ($\beta=2.46$, 95% CI=1.19-5.09, $p=0.01$) and muscle atrophy ($\beta=2.05$, 95% CI=1.03-4.08, $p=0.03$).

The CRISS cohort included 35 patients, 32 females (91.42%), 48.48 (14.24) years old, 62.85% diffuse subset, medium disease duration 11.88 (7.9) months. 8 patients were excluded due to new onset or worsening of lung fibrosis or SRC. None of the patients had a CRISS score with a probability of improvement >0.6.

Conclusion: We could not conclude that there is a gold standard to measure disease activity; for daily practice especially EscSG and r-EUSTAR DAI quantify and predict major organ involvement. CRISS can be useful as an outcome measure for patients with short disease duration and closely monitored in clinical studies.

REFERENCES:

- [1] K. Melsens, et al. Disease activity indices in systemic sclerosis: a systematic literature review Clin Exp Rheumatol 2016; 34 (Suppl. 100):S186-S192.

Disclosure of Interests: Laura Groseanu: None declared, Sorana Petrescu: None declared, Andra Balanescu Speakers bureau: multiple, Daniela Opris-Belinski Grant/research support from: GLORIA, Speakers bureau: multiple, Violeta Bojinca Speakers bureau: multiple, Florian Bergha: None declared, Ioana Saulescu: None declared, Sanziana Daia-Ilescu: None declared, Diana Mazilu Speakers bureau: Pfizer, UCB, Andreea Borangiu: None declared, Cosmin Constantinescu: None declared, Maria Magdalena Negru: None declared, Mihai Abobului: None declared, Violeta Vlad: None declared, Ruxandra Ionescu: None declared

DOI: 10.1136/annrheumdis-2019-eular.7527

FRI0325

IDENTIFYING SYSTEMIC SCLEROSIS PATIENTS AT RISK OF PROGRESSIVE LUNG FIBROSIS – A EUSTAR DATABASE ANALYSIS

Anna-Maria Hoffmann-Vold¹, Martina Gahlemann², Nicole Graf³, Paolo Airò⁴, Lidia P. Ananyeva⁵, László Cziráj⁶, Serena Guiducci⁷, Eric Hachulla⁸, Li Mengtao⁹, Carina Mihai¹⁰, Gabriela Riemekasten¹¹, Petros Sfrikakis¹², Gabriele Valentini¹³, Otylia Kowal-Bielecka¹⁴, Yannick Allanore¹⁵, Oliver Distler¹⁰. ¹Oslo University Hospital, Department of Rheumatology, Oslo, Norway; ²Boehringer Ingelheim (Schweiz), GmbH, Basel, Switzerland; ³Graf Biostatistics, Winterthur, Switzerland; ⁴Spedali Civili di Brescia, UO Reumatologia e Immunologia Clinica, Brescia, Italy; ⁵VA Nasonova Institute of Rheumatology, Moscow, Russian Federation; ⁶University of Pécs, Department of Rheumatology and Immunology, Pécs, Hungary; ⁷University of Florence, Department of Clinical and Experimental Medicine, Section of Rheumatology, Florence, Italy; ⁸Hôpital Claude Huriez, University of Lille, Department of Internal Medicine and Clinical Immunology, Lille, France; ⁹Peking Union Medical College Hospital, Department of Rheumatology, Beijing, China; ¹⁰University Hospital Zurich, Department of Rheumatology, Zurich, Switzerland; ¹¹University of Medical Center Schleswig-Holstein, Department of Rheumatology and Clinical Immunology, Lübeck, Germany; ¹²National and Kapodistrian University of Athens Medical School, Joint Rheumatology Programme, Athens, Greece; ¹³II Policlinico U.O. Reumatologia, Dipartimento di Medicina di Precisione, Napoli, Italy; ¹⁴Medical University of Białystok, Department of Rheumatology and Internal Medicine, Białystok, Poland; ¹⁵Descartes University, APHP, Cochin Hospital, Department of Rheumatology A, Paris, France

Background: Early identification of patients with systemic sclerosis-associated interstitial lung disease (SSc-ILD) at risk of progression could help tailor management and aid cohort enrichment in clinical trials to improve outcome.

Objectives: To assess the frequency of progressive SSc-ILD in the total ILD cohort and in subgroups enriched by risk factors in the EUSTAR database.

Methods: Patients from the EUSTAR database registered after 2010, ≥ 18 yrs old, fulfilling SSc classification criteria, with serial lung function and HRCT assessments were eligible. The following risk factors for progressive SSc-ILD available in the EUSTAR database were chosen as enrichment criteria: low forced vital capacity (FVC) and diffusing capacity for carbon monoxide (DL_{CO}), diffuse cutaneous SSc, anti-topoisomerase I antibody (ATA), short disease duration, older age, male sex, increased C-reactive protein, and presence of respiratory symptoms and reflux disease. Eligible patients with progressive ILD were assessed in the cohort and in subgroups enriched by the risk factors. Progressive SSc-ILD was assessed as absolute changes in %predicted and defined as: significant

progressive (FVC decline $>10\%$, or FVC decline 5–10% and DL_{CO} decline $\geq 15\%$), moderate progressive (FVC decline 5–10%) or stable ($<5\%$ FVC change in either direction). The follow-up period was defined as time from baseline to last available lung function test.

Results: 6004 patients fulfilled the main entry criteria; of these, 1822 (30.3%) had ILD. At baseline, mean age was 57 yrs, 17.4% were male, 48.2% had diffuse SSc, 53.5% were ATA-positive, mean baseline FVC 86% and DL_{CO} 59%, mean disease duration 9.8 yrs, and follow-up was 2.5 yrs. In the total ILD cohort (30% eligible patients), 21% showed progressive ILD. Enriching with single risk factors reduced the number of eligible patients down to 6%, while the frequency of progressive ILD stayed stable (Figure). Combinations of risk factors did not result in increasing numbers of progressive ILD patients, but in further decreasing numbers of eligible patients.

Conclusion: There is still an unmet need to identify SSc-ILD patients at risk of progression with efficient risk factors. For clinical trials, it is a challenge to balance feasibility of recruitment and enrichment.

Acknowledgement: Funding: Boehringer Ingelheim (Schweiz) GmbH, Switzerland

ACA, anti-centromere antibody; ATA, anti-topoisomerase I antibody; CRP, C-reactive protein; DLCO, diffusing capacity for carbon monoxide; FVC, forced vital capacity; HRCT, high-resolution computed tomography; ILD, interstitial lung disease; SSc, systemic sclerosis.

Disclosure of Interests: Anna-Maria Hoffmann-Vold Grant/research support from: Received research funding or other remuneration from Boehringer Ingelheim, GSK, and Actelion, Consultant for: Received consulting fees or other remuneration from Boehringer Ingelheim, GSK, and Actelion, Speakers bureau: Actelion and Boehringer Ingelheim, Martina Gahlemann Employee of: Employee of Boehringer Ingelheim

, Nicole Graf Grant/research support from: Received consulting fees or other remuneration from Astellas and Biotronik, Paolo Airò: None declared, Lidia P. Ananyeva: None declared, László Cziráj: None declared, Serena Guiducci: None declared, Eric Hachulla Consultant for: Received consulting fees or other remuneration from Actelion, GSK, Pfizer, and Bayer, Mengtao Li: None declared, Carina Mihai Consultant for: Received consulting fees or other remuneration from Actelion, Geneva, Roche, and Rofarm, Consultant for: F. Hoffmann-La Roche, Actelion, Geneva Romfarm, Gabriela Riemekasten Consultant for: Chugai, F. Hoffmann-La Roche, Speakers bureau: Chugai, F. Hoffmann-La Roche, Petros Sfrikakis: None declared, Gabriele Valentini Grant/research support from: Received research funding and other remuneration from AbbVie, BMS, Lilly, Pfizer, and Sanofi, Consultant for: Received consulting fees and other remuneration from AbbVie, BMS, Lilly, Pfizer, and Sanofi, Otylia Kowal-Bielecka Consultant for: Received consulting fees or other remuneration from Bayer, Boehringer Ingelheim, Inventiva, Medac, Novartis, and Roche, Yannick Allanore Grant/research support from: Inventiva, F Hoffmann La-Roche, Sanofi, BMS, Pfizer, Consultant for: Actelion, Bayer, BMS, Boehringer, Roche, Sanofi, Oliver Distler Grant/research support from: Prof. Distler received research funding from Actelion, Bayer, Boehringer Ingelheim and Mitsubishi Tanabe to investigate potential treatments of scleroderma and its complications, Consultant for: Prof. Distler has/had consultancy relationship within the last 3 years with Actelion, AnaMar, Bayer, Boehringer Ingelheim, ChemomAb, espeRare foundation, Genentech/Roche, GSK, Inventiva, Italfarmaco, iQvia, Lilly, medac, MedImmune, Mitsubishi Tanabe Pharma, Pharmacyclics, Novartis, Pfizer, Sanofi, Sero-dapharm and UCB in the area of potential treatments of scleroderma and its complications. In addition, he had/had consultancy relationship within the last 3 years with A. Menarini, Amgen, Abbvie, GSK, Mepha, MSD, Pfizer and UCB in the field of arthritides and related disorders

DOI: 10.1136/annrheumdis-2019-eular.2574