Documents

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Sex influence on outcomes of patients with systemic sclerosis-associated interstitial lung disease: A EUSTAR database analysis

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[a] Unit of Immunology Rheumatology, Allergy and Rare Diseases, IRCCS San Raffaele Hospital, Vita-Salute San Raffaele University, Milan, Italy

[b] Department of Rheumatology, Oslo University Hospital, Oslo, Norway

[c] Service de Rheumatologie, Cochin Hospital, APHP, Universite Paris Descartes, 27 rue du Faubourg Saint Jacques, Paris, 75014, France

[d] Centre for Interdisciplinary Clinical Immunology Rheumatology and Auto-Inflammatory Diseases, Department of Internal Medicine II (Haematology, Oncology, Immunology and Rheumatology), University Hospital Tuebingen, Tuebingen, Germany

[e] Department of Rheumatology, Leiden University Medical Center, Leiden, Netherlands

[f] Department of Rheumatology, Ghent University Hospital, Ghent, Belgium

[g] Department of Rheumatology and Clinical Immunology, Charite-Universitatsmedizin Berlin, Berlin, Germany

[h] Rheumatology and Clinical Immunology Department, Spedali Civili, Brescia, Italy

[i] Department of Internal Medicine, Division of Rheumatology, Ege University, Faculty of Medicine, Izmir, Turkey

[j] Rheumatology Unit, Ospedale Mauriziano, Torino, Italy

[k] Department of Rheumatology, Cliniques Universitaires Saint-Luc, Universite Catholique de Louvain, Louvain-la-Neuve, Belgium

[l] Rheumatology Unit, S. Gerardo Hospital, Monza, Italy

[m] Division of Rheumatology, Department of Internal Medicine, Istanbul Faculty of Medicine, Istanbul, Turkey

[n] Service de Rheumatologie, RESO: Centre de Reference des Maladies Autoimmunes Systemiques Rares Est Sud-Ouest, Hôpital De Hautepierre, Strasbourg, France

[o] Department of Clinical and Molecular Sciences, Universita′ Politecnica Delle Marche, Ancona, Italy

[p] Department of Rheumatology, University Hospital Zurich, University of Zurich, Zurich, Switzerland

Abstract

Objective: Interstitial lung disease (ILD) is the leading cause of morbidity and mortality in systemic sclerosis (SSc) patients. We aimed to investigate the impact of sex on SSc-ILD. Methods: EUSTAR SSc patients with radiologically confirmed ILD and available percentage predicted forced vital capacity (%pFVC) were included. Demographics and disease features were recorded. A change in %pFVC over 12 months (s.d. 6) (cohort 1) was classified into stable (≤4%), mild (5-9%) and large progression (≥10%). In those with 2-year longitudinal %pFVC (cohort 2), the %pFVC change at each 12-month (s.d. 6) interval was calculated. Logistic regression analyses [odds ratio (OR) and 95% CI] and Cox proportional hazards models adjusted for age and %pFVC were applied. Results: A total of 1136 male and 5253 female SSc-ILD patients were identified. Males were significantly younger, had a shorter disease duration, had a higher prevalence of CRP elevation and frequently had diffuse cutaneous involvement. In cohort 1 (1655 females and 390 males), a higher percentage of males had stable ILD (74.4% vs 69.4%, P = 0.056). In multivariable analysis, disease duration and %pFVC [OR 0.99 (95% CI 0.98, 0.99) and OR 0.97 (95% CI 0.95, 0.99), respectively] in males and age, %pFVC and anti-centromere [OR 1.02 (95% CI 1.00, 1.04), OR 0.97 (95% CI 0.96, 0.98) and OR 0.39 (95% CI 0.245, 0.63), respectively] in females were associated with large progression. The 1-year mortality rate was higher in males (5.1% vs 2.5%, P = 0.013). In cohort 2 (849 females and 209 males), a higher percentage of females showed periods of large progression (11.7% vs 7.7%, P = 0.023), the percentage of patients with none, one or two periods of worsening was not different. The overall death rate was 30.9% for males and 20.4% in females (P < 0.001). In the survival

analysis, male sex was a predictor of mortality [OR 1.95 (95% CI 1.66, 2.28)]. Conclusions: Male SSc-ILD patients have a poorer prognosis and sex-specific predictors exist in SSc-ILD. © 2022 The Author(s). Published by Oxford University Press on behalf of the British Society for Rheumatology. All rights reserved.

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Correspondence Address
Allanore Y.; Service de Rheumatologie, 27 rue du Faubourg Saint Jacques, France; email: yannick.allanore@aphp.fr

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