months during the first year of treatment. Some of the patients received both drugs in different evolutionary periods of their disease. The study was approved by the Clinical Research Ethics Committee (CREC) of our hospital.

Results: Of the 42 patients included, 29 received Pi, 69% men and 31% women, with a mean age of 71 years (78% ex-smokers). Baseline FVC was 2140 ml (74.4% of the predicted value) and DLCO was 40.8% with respect to the expected value. The absolute loss in FVC after 52 weeks of follow-up was 200 ml. 48.3% required treatment with glucocorticoids (GC) at some point, either due to exacerbations of the disease or as concomitant treatment. 65.5% presented some adverse reaction to Pi, being gastrointestinal discomfort (GI) the most frequently observed, although mainly of self-limiting course, with the definitive suspension of the drug being necessary in 6 cases. As for the patients treated with Ni, 70.6% were men and 29.4% women, 82% ex-smokers, with an average age of 72 years. Baseline CVF value was 2480 ml (83.8% of the predicted value) and DLCO value was 54.7%. The decrease in FVC in absolute terms was 70 ml. Similarly, 4 patients required the use of GC at some point in the study. With regard to adverse reactions, 76.5% presented some type of adverse event, GI discomfort being the most frequent, followed by increased transaminases and mild diarrhoea. The great majority were of limited duration, requiring the definitive suspension of the drug in 5 patients. Five patients treated with Pi died due to exacerbations of their disease.

Conclusions: This project supports, with data from usual clinical practice, the beneficial effect of the AF drugs available for the treatment of mild-moderate IPF. Both drugs have been shown to slow down the natural evolution of the disease, reducing the loss of FVC, a variable directly related to mortality. This therapy has acceptable safety margins. However, there are still no references regarding its administration in incipient and advanced stages of the disease nor on their combined use with each other or with immunomodulators for the control of immune mediated diseases.

Acknowledgements: To the nurses and all members of the Pneumology Service for their collaboration in the follow-up of the patients included in this study.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7208

FRI0462 SERUM KL-6 IS A STRONG PREDICTOR FOR RELAPSE OF MYOSITIS-ASSOCIATED INTERSTITIAL LUNG DISEASE

S. Takanashi, N. Nishina, M. Nakazawa, Y. Kaneko, T. Takeuchi. *Rheumatology, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan*

Background: Polymyositis (PM), dermatomyositis (DM) and clinically amyopathic DM (CADM) are autoimmune myositis which can be associated with interstitial lung disease (ILD).^{1,2} The relapse rate of ILD is high, reported as approximately 20%–55%.^{3,4} Since relapses result in decreased pulmonary function, it is important to identify the predictive factors for the relapse.

Objectives: The aim of this study was to elucidate the predictive factors for the relapse of ILD associated with myositis (PM/DM/CADM).

Methods: We conducted an observational retrospective study. Patients with myositis-associated ILD who have ever visited our institution between 2002–2017 and achieved remission once were enrolled. Patients who died before remission were excluded. We collected their clinical information from medical records. We compared patient characteristics between relapse group and non-relapse group by Fisher's exact test or Mann-Whitney U test at first. Relapse was defined as exacerbation of radiological findings of which doctor-in-charge decided to intensify therapy for ILD. We performed Kaplan-Meier analysis to compare the relapse-free survival for the characteristics that had significant differences between two groups. To perform Kaplan-Meier analysis, continuous variables were converted to dichotomous variables for analysis by setting cut-off values determined by receiver-operating characteristics (ROC). Then, using each characteristic which showed significant difference in Kaplan-Meier analysis, we conducted Cox's proportional hazard analysis for multivariate analysis. For relapse group, we examined the changes of serum KL-6 levels from the initial treatment of myositis-associated ILD to the relapse of ILD. We calculated the average of serum KL-6 levels of 3 months and 6 months before relapse, respectively, then compared them with KL-6 levels at the time of relapse.

Results: Seventy-two patients with myositis-associated ILD at our institution were enrolled. Among 72 patients, 24 experienced relapse (relapse group) and 48 did not experience relapse (non-relapse group). Median observational period was 31.5 months and 39.0 months, respectively. Median levels of serum KL-6, the rate of patients who had upper lung field (ULF) lesion by CT, and anti-ARS antibody prevalence were significantly higher in relapse group than in non-relapse group (1870 vs 935 U/mL, $p=0.003$; 62 vs 27%, $p=0.01$; 88 vs 60%, $p=0.03$, respectively). Median levels of %VC were significantly lower in relapse group than in non-relapse group (65.7 vs 81.2%, $p=0.02$). By ROC analysis, the cut-off levels of serum KL-6 and %VC were determined as 1359 U/mL and 70.5%, respectively. Kaplan-Meier analysis showed serum KL-6 >1359 U/mL ($p=0.02$), anti-ARS

antibody ($p<0.05$), %VC <70.5 ($p=0.004$), and ULF lesions ($p=0.01$) were significantly related to the relapse (figure 1). Multivariate analysis revealed only serum KL-6 >1359 U/mL was an independent risk factor for relapse (hazard ratio: 4.9 (95%CI 1.0–24.0), $p<0.05$) among the 4 characteristics. At the time of the relapse, serum KL-6 levels were increased 37% from the 3 months average and 51% from the 6 months average.

Conclusions: Serum KL-6 was a strong predictor for relapse of myositis-associated ILD.

REFERENCES:

- [1] N Engl J Med. 1975;292:344.
- [2] J Am Acad Dermatol. 2002;46:626.
- [3] Autoimmunity 2006;39:233.
- [4] Rheumatology (Oxford) 2015;54:39.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2045

FRI0463 A NEW COMPUTED TOMOGRAPHY INDEX FOR QUANTIFICATION OF INTERSTITIAL LUNG DISEASE IN SYSTEMIC SCLEROSIS IS ASSOCIATED WITH LUNG FUNCTION PARAMETERS IN THE SHORT TERM FOLLOW-UP

S. Vettori¹, M. Bocchino², D. Bruzzese³, M. D'Alto⁴, P. Argiento⁴, V. Giacco¹, E. Romeo⁴, A. Capaccio², G. Rea⁵, T. Valente⁵, A. Sanduzzi-Zamparelli², G. Valentini¹. ¹Biochemistry, Biophysics, and General Pathology, University of Campania Luigi Vanvitelli; ²Pneumology Unit; ³Biostatistics, University of Naples Federico II; ⁴Cardiology Unit, University of Campania Luigi Vanvitelli; ⁵Radiology Unit, Monaldi Hospital, Naples, Italy

Background: New computer-assisted methods for the objective quantification of interstitial lung disease (ILD) at computed tomography (CT), based on the evaluation of mean lung attenuation (MLA), skewness and kurtosis have been recently investigated in Systemic Sclerosis (SSc). We developed a computerised integrated index (CII) based on a weighted evaluation of MLA, skewness and kurtosis and investigated its reliability for the quantitative assessment of SSc-ILD and its associations with lung function parameters in a cross-sectional study.

Objectives: To identify the CII cut off value with the highest sensitivity and specificity for CT-detected ILD and to investigate its impact on lung function parameters over-time of baseline assessed CII.

Methods: SSc patients meeting the new ACR/EULAR classification criteria, who had undergone a volumetric lung CT study from July 1 st 2014 to June 30th 2015, had been evaluated at baseline for ILD quantification by Goh et al. method and the previously referred dedicated software and had their CII calculated, were enrolled in a prospective study including complete clinical, serological, and functional assessment at baseline and at 1 year follow-up (FU).

Results: Thirty-nine out of 83 (47%) SSc patients (79 females, 4 males; mean age 56.4±11.3 years; median disease duration 12 years;²⁻⁵⁴ 18 diffuse cutaneous and 65 limited cutaneous SSc) had evidence of ILD as assessed by volumetric CT of the lungs at baseline. CII in patients with ILD was significantly lower than in those without ILD (-0.4929±0.9933 versus 0.4145±0.8059 HU; $p<0.0001$). ROC analysis revealed that the best discriminating CII value for ILD was 0.1966: