ERS CONGRESS | 2026
5-9 September | Barcelona, Spain

Baseline forced vital capacity and disease duration associate with treatment response in pulmonary sarcoidosis

V. Kahlmann (Rotterdam, Netherlands), V. Bogaard (Rotterdam, Netherlands), C. Moor (Rotterdam, Netherlands), R. Mostard (Heerlen/Sittard, Netherlands), L. Moonen (Arnhem, Netherlands), M. Overbeek (Leiden, Netherlands), M. Veltkamp (Nieuwegein, Netherlands), M. Wijsenbeek (Rotterdam, Netherlands), J. Miedema (Rotterdam, Netherlands)

Background Study design in pulmonary sarcoidosis is complicated by the heterogeneous nature of the disease. Recently, expert consensus suggested ≥10% improvement in FVC as clinical trial endpoint. However, it is unknown if study inclusion criteria correlate with this lung function outcome. In a post-hoc analysis of the PREDMETH study, we assessed whether baseline characteristics could predict FVC response to first-line treatment with prednisone or methotrexate.

Methods Predictors of ΔFVC at 24 weeks were evaluated using univariate linear regression, followed by multivariate regression. Responder analyses were performed using logistic regression, stratifying patients by baseline FVC (<77% vs ≥77%, median split) and defining response as ≥5% and ≥10% improvement in FVC.

Results Data were available from 135 patients. In the univariate analysis, baseline FVC, age, and disease duration were associated with ΔFVC at week 24, whereas treatment (prednisone or methotrexate) was not. In multivariate regression, higher baseline FVC and longer disease duration were associated with less improvement in FVC at 24 weeks (table 1). Patients with lower baseline FVC were more likely to achieve improvement compared with those with higher baseline FVC, for ≥5% (OR=2.80, p=0.004) and ≥10% (OR=2.34, p=0.021).

Table 1. Baseline characteristics and change in FVC at week 24 (n=135) in multivariate regression

	Unstandardized B (SD)	**p-value**
Baseline FVC% predicted	-0.196 (0.054)	<0.001
Disease duration (in years)	-0.453 (0.196)	0.022
Age (in years)	-0.100 (0.067)	0.138

Conclusion Baseline FVC and disease duration are associated with FVC change over 24 weeks in pulmonary sarcoidosis. These findings can help identify more homogenous trial populations and improve trials design in pulmonary sarcoidosis.