



ERS

EUROPEAN RESPIRATORY SOCIETY
INTERNATIONAL CONGRESS 2023
MILAN Italy, 9-13 September

Treatable traits in advanced emphysema patients eligible for bronchoscopic lung volume reduction

R. Posthuma (Horn, Netherlands), M. Van Der Molen (Groningen, Netherlands), J. Hartman (Groningen, Netherlands), M. Spruit (Horn, Netherlands), D. Slebos (Groningen, Netherlands), L. Vanfleteren (Gothenburg, Sweden), A. Vaes (Horn, Netherlands)

Introduction

Endobronchial valves (EBV) are an effective treatment in highly selected COPD patients with advanced emphysema.

Aims

To evaluate a spectrum of treatable traits (TTs) in COPD patients eligible for EBV, stratified for higher or lower health-related quality of life (HRQL).

Methods

The SoLVE study (NCT03474471) was a prospective multicenter RCT on the systemic effects of EBV. At baseline, a comprehensive assessment was performed including lung function, exercise capacity, muscle strength, physical activity and patient reported outcome measures. Subjects were divided into higher or lower HRQL based on the St. George's Respiratory Questionnaire total score (SGRQ $\leq$ or $\geq$ 60 points). TTs were calculated on pre-defined thresholds. Logistic regression assessed the odds ratio (OR) of having a SGRQ of $\geq$ 60 points per TT.

Results

In total, 97 subjects were included: 62 ± 7 yrs, 37% male, mean FEV1 $27 \pm 7\%$ pred, RV $251 \pm 45\%$ pred and a mean SGRQ score of 60 ± 12 points, with 53% scoring $\geq$ 60 points.

The mean number of TTs per patient was 4.5 ± 1.8 , 3.1 ± 1.4 in SGRQ < 60 points and 5.4 ± 1.3 in SGRQ ≥ 60 points ($P < 0.05$). Severe fatigue, measured with Checklist Individual Strength, had the highest OR (6.48).

Conclusions

A high prevalence and co-occurrence of multiple TTs could be identified in emphysema patients eligible for EBV. These results justify to study the efficacy of the combination of EBV treatment and pulmonary rehabilitation.

Figure 1 Treatable traits stratified for high or lower St. George's Respiratory Questionnaire total score

