Association Between Clinical Outcomes and Baseline Body Mass Index or Annualized Weight Loss in Patients With Idiopathic Pulmonary Fibrosis Enrolled in the Pulmonary Fibrosis Foundation Patient Registry

Joyce S. Lee,1 Adam Martin-Schwarze,2 Elizabeth Freiheit,2 Ming Yang,2 Cindy Burg2
1University of Colorado Hospital, Anschutz Medical Campus, Aurora, CO; 2University of Michigan, SABER, Ann Arbor, MI; 2Genentech, Inc., South San Francisco, CA

BACKGROUND

• Idiopathic pulmonary fibrosis (IPF) is a chronic, progressive and fatal lung disease
• Low baseline body mass index (BMI) and weight loss have been linked to poor outcomes in patients with IPF
• The US Pulmonary Fibrosis Foundation Patient Registry (PFF-PR) is an observational registry that collects comprehensive data on diagnosis, symptoms, medication use, and outcomes in patients with IPF and other interstitial lung diseases1
• This analysis investigated the association between clinical outcomes and baseline BMI, or annualized change in body weight in patients with IPF in a real-world setting

METHODS

Study Design
• This analysis aimed to examine the relationship between:
  • BMI group at enrollment or annualized percent change in body weight
  • This analysis investigated the association between clinical outcomes and baseline BMI or annualized change in body weight in patients with IPF in a real-world setting

Selection Criteria
• A diagnosis of IPF
• Weight and height information at baseline
• ≥ 1 post-enrollment weight measurement
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Clinical Outcomes
• The primary outcome was all-cause mortality at 24 months
• Secondary outcomes included:
  • Changes from baseline to 24 months in lung function, as assessed by percent predicted forced vital capacity (%FVC) and percent predicted diffusing capacity for carbon monoxide (%DLco)
  • BMI group at enrollment or annualized percent change in body weight loss group and clinical outcomes

Statistics
• Logistic regression was used in analysis of binary outcomes, and linear mixed models were used for longitudinal continuous outcomes
• Adjustments were made for age, sex, smoking history, oxygen use during exertion, pulmonary function, significant comorbidities and medications
• Annualized change in body weight was estimated using a linear mixed model with a random intercept and random slope

RESULTS

No difference in all-cause mortality was observed between baseline BMI groups

Patients with baseline BMI < 25 kg/m² had a greater estimated annualized decline in %FVC than patients with baseline BMI ≥ 30 kg/m² (difference 1.74% [95% CI, 0.47%, 3.01%]), and a similar trend was observed for %DLco.

REFERENCE