**Relationship between body mass index (BMI) and decline in FVC in patients with IPF**

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**Background:**
Idiopathic pulmonary fibrosis (IPF) is a progressive fibrosing interstitial lung disease of unknown aetiology.

**Aim:**
To assess whether BMI at baseline was associated with disease progression or influenced the treatment effect of nintedanib in the INPULSIS trials.

**Methods:**
In the INPULSIS trials, BMI at baseline was ≥27 kg/m² in patients with IPF (n=360) and <27 kg/m² in patients with emphysema. Mean (SD) FVC % predicted in patients with BMI <27 kg/m² was 66.8 (9.9) and 27 (12.6) in patients with BMI ≥27 kg/m² (both p<0.001 for difference).

**Analysis:**
Analysis was conducted post hoc using pooled data from patients who received ≥1 dose of trial drug.

**Results:**

- **BMI ≥27 kg/m²:**
  - 33 (15.3%) patients were treated with nintedanib and 45.6 (14.1%) patients were treated with placebo.
  - The planned observation time was completed by 80.0% and 86.3% of patients who died were numerically greater in patients with baseline BMI <27 kg/m² than ≥27 kg/m².

- **BMI <27 kg/m²:**
  - 29 (13.9%) patients were treated with nintedanib and 45.6 (14.1%) patients were treated with placebo.
  - The planned observation time was completed by 80.0% and 86.3% of patients who died were numerically greater in patients with baseline BMI <27 kg/m² than ≥27 kg/m².

**Conclusion:**
Nintedanib reduced the annual rate of decline in FVC both in patients with baseline BMI below and above the median at baseline.

**Acknowledgments:**
This post-hoc analysis of data from the INPULSIS trials suggests that the rate of decline in FVC was greater in untreated patients with IPF with BMI ≥27 kg/m² compared with patients with BMI <27 kg/m². The addition of nintedanib to standard therapy in patients with IPF and BMI ≥27 kg/m² resulted in a reduction of the annual rate of FVC decline compared with placebo in all subgroups, including IPF patients with BMI ≥27 kg/m². The results of this post-hoc analysis support the use of nintedanib in patients with IPF and BMI ≥27 kg/m², as it may offer a potential benefit in slowing the rate of FVC decline compared with placebo.