Effect of statins on disease-related outcomes in patients with idiopathic pulmonary fibrosis

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ABSTRACT

Background Data are conflicting regarding the possible effects of statins in patients with idiopathic pulmonary fibrosis (IPF). This post hoc analysis assessed the effects of statin therapy on disease-related outcomes in IPF.

Methods Patients randomised to placebo (n=624) in three controlled trials of pirfenidone in IPF (CAPACITY 004 and 006, ASCEND) were categorised by baseline statin use. Outcomes assessed during the 1-year follow-up included disease progression, mortality, hospitalisation and composite outcomes of death or ≥10% absolute decline in FVC and death or ≥50 m decline in 6-minute walk distance (6MWD).

Results At baseline, 276 (44%) patients were statin users versus 348 (56%) non-users. Baseline characteristics were similar between groups, except statin users were older and had higher prevalence of cardiovascular disease and risk factors. In multivariate analyses adjusting for differences in baseline characteristics, statin users had lower risks of death or 6MWD decline (HR 0.69; 95% CI 0.48 to 0.99, p=0.0465), all-cause hospitalisation (HR 0.58; 95% CI 0.35 to 0.94, p=0.0289), respiratory-related hospitalisation (HR 0.44; 95% CI 0.25 to 0.80, p=0.0063) and IPF-related mortality (HR 0.36; 95% CI 0.14 to 0.95, p=0.0393) versus non-us use were observed for disease progression (HR 0.75; 95% CI 0.52 to 1.07, p=0.1135), all-cause mortality (HR 0.54; 95% CI 0.24 to 1.21, p=0.1369) and death or FVC decline (HR 0.71; 95% CI 0.48 to 1.07, p=0.1032).

Conclusions This post hoc analysis supports the hypothesis that statins may have a beneficial effect on clinical outcomes in IPF. Prospective clinical trials are required to validate these observations.