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Journal club

Tyrosine kinase inhibitor use in idiopathic pulmonary fibrosis

This randomised, multicentre, double-blind, placebo-controlled trial evaluated the efficacy and safety of four different doses of BIBF 1120, a tyrosine kinase inhibitor, in order to investigate its effect on progression of idiopathic pulmonary fibrosis (IPF).

The annual rate of decline in forced vital capacity (FVC), the primary end-point of this study, in the highest dose subgroup compared with the placebo subgroup failed to show statistical significance. However, the authors were able to demonstrate that the changes in FVC from baseline, total lung capacity, oxygen saturations, acute exacerbations and quality of life were statistically significantly better in the group receiving the highest dose of BIBF 1120. Serious adverse events were similar between groups, but lower in the highest dosing regimen compared with placebo. The most common reason for discontinuation of the medication was gastrointestinal upset.

Of note, only 33% of the patients recruited fulfilled the criteria for definite IPF with the remainder being diagnosed as probable, possible or no IPF (one patient). Discontinuation of BIBF 1120 was more evident among the group receiving the highest treatment dose relative to other groups (37.6%).

Although BIBF 1120 failed to demonstrate a decline in annual FVC rates, it was associated with numerous clinically significant benefits including reduced numbers of exacerbations and improved quality of life at the highest dose while proving to be safe. With limited options for treatment and the encouraging beneficial effects of BIBF 1120, further research is warranted on a carefully selected cohort of patients with a formal diagnosis of IPF.

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