Selexipag for the treatment of chronic thromboembolic pulmonary hypertension

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Shareable abstract (@ERSpublications)
Selexipag significantly improved pulmonary vascular resistance and other haemodynamics in patients with chronic thromboembolic pulmonary hypertension, although exercise capacity remained unchanged https://bit.ly/3HfPA9s

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Abstract

Background Treatment options for inoperable chronic thromboembolic pulmonary hypertension (CTEPH) remain limited. Selexipag, an oral selective IP prostacyclin receptor agonist approved for pulmonary arterial hypertension, is a potential treatment option for CTEPH.

Methods In this multicentre, randomised, double-blind, placebo-controlled study, 78 Japanese patients with inoperable CTEPH or persistent/recurrent pulmonary hypertension after pulmonary endarterectomy and/or balloon pulmonary angioplasty were randomly assigned to receive placebo or selexipag. The primary end-point was the change in pulmonary vascular resistance (PVR) from baseline to week 20. Secondary end-points were changes in other haemodynamic parameters: 6-min walk distance (6MWD), Borg dyspnoea scale score, World Health Organization (WHO) functional class, EuroQol five-dimension five-level tool and N-terminal pro-brain natriuretic peptide.

Results The change in PVR was −98.2±111.3 dyn·s·cm^{-5} and −4.6±163.6 dyn·s·cm^{-5} in the selexipag and placebo groups, respectively (mean difference −93.5 dyn·s·cm^{-5}; 95% CI −156.8 to −30.3; p=0.006). The changes in cardiac index (p<0.001) and Borg dyspnoea scale score (p=0.036) were also significantly improved over placebo. 6MWD and WHO functional class were not significantly improved. The common adverse events in the selexipag group corresponded to those generally observed following administration of a prostacyclin analogue.

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Conclusion Selexipag significantly improved PVR and other haemodynamic variables in patients with CTEPH, although exercise capacity remained unchanged. Further large-scale investigation is necessary to prove the role of selexipag in CTEPH.