Effects of angiotensin type 1 receptor antagonists on Parkinson's disease progression: An exploratory study in the PPMI database

Udovin, L.
Otero-Losada, M.
Bordet, S.
Chevalier, G.
Quarracino, C.
Capani, F.
Pérez-Lloret, S.

Abstract
Introduction: We explored the potential clinical effects of angiotensin-II AT1 receptor blockers (ARBs) and angiotensin-converting enzyme inhibitors (ACEIs) in patients from the Parkinson's Progress Marker Initiative (PPMI) study database. Methods: We included 423 newly diagnosed PD patients, free from antiparkinsonian treatment, from the PPMI. We compared the proportion of patients starting on L-DOPA during the first year of follow-up, and the changes in MDS-UPDRS total score and sub-scores during the first five follow-up years for patients exposed or not to ARBs or ACEIs. Results: Treatment with ARBs did not affect the proportion of patients on L-DOPA during the first year (adjusted OR, 95% CI = 0.26, 0.03–2.18, N.S.) while reduced MDS-UPDRS total score (0.85, 0.76–0.95, $p < 0.01$). Patients treated with ACEIs experienced no changes in either measure. Conclusions: These results show potential signals for a beneficial effect with ARBs. Further clinical trials are warranted.

Author keywords
Angiotensin II
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