Olmesartan

- Real-World Effectiveness and Safety of a Single-Pill Combination of Olmesartan/Amlodipine/Hydrochlorothiazide in Korean Patients with Hypertension and Cardiovascular Risk Factors
- Efficacy of Antihypertensive Drugs of Different Classes After Renal Denervation in Spontaneously Hypertensive Rats
- The Clinical Efficacy of Clopidogrel Bisulfate Tablets Combined with Olmesartan Medoxomil for Ischemic Stroke with Hypertension and the Effect of Angiotensin II Type 1 Receptor Level on Prognosis
- Real-world evidence on the strategy of olmesartan-based triple single-pill combination in Korean hypertensive patients: a prospective, multicenter, observational study (RESOLVE-PRO)
- Candidate drugs for preventive treatment of unruptured intracranial aneurysms: A cross-sectional study
- Olmesartan combined with renal denervation reduces blood pressure in association with sympatho-inhibitory and aldosterone-reducing effects in hypertensive mice with chronic kidney disease
- Improvement of Plasma Biomarkers after Switching Stroke Patients from Other Angiotensin II Type I Receptor Blockers to Olmesartan
- Magnitude of blood pressure reduction in the placebo arms of modern hypertension trials: implications for trials of renal denervation

Establishment of drug therapy to prevent rupture of unruptured intracranial aneurysms (IAs) is needed. Previous human and animal studies have gradually clarified candidate drugs for the preventive treatment of IA rupture. However, because most of these candidates belong to classes of drugs frequently co-administered to prevent cardiovascular diseases, epidemiological studies evaluating these drugs simultaneously should be performed. Furthermore, because drugs included in the same class may have different effects in terms of disease prevention, drug-by-drug assessments are important for planning intervention trials.

Shimizu et al. performed a cross-sectional study enrolling patients diagnosed with IAs between July 2011 and June 2019. Patients were divided into ruptured or unruptured groups. The drugs investigated were selected according to evidence suggested by either human or animal studies. Univariate and multivariate logistic regression analyses were performed to assess the association of drug treatment with rupture status. They also performed drug-by-drug assessments of the association, including dose-response relationships, with rupture status.

In total, 310 patients with ruptured and 887 patients with unruptured IAs were included. Multivariate analysis revealed an inverse association of statins (odds ratio (OR), 0.54; 95% confidence interval (CI) 0.38-0.77), calcium channel blockers (OR, 0.41; 95% CI 0.30-0.58), and angiotensin II receptor blockers (ARBs) (OR, 0.67; 95% CI 0.48-0.93) with ruptured IAs. Moreover, inverse dose-response relationships with rupture status were observed for pitavastatin and rosuvastatin among statins, benidipine, cilnidipine, and amlodipine among calcium channel blockers, and valsartan, azilsartan, candesartan, and olmesartan among ARBs. Only non-aspirin non-steroidal anti-inflammatory drugs were positively associated with ruptured IAs (OR, 3.24; 95% CI 1.71-6.13).

The present analysis suggests that several types of statins, calcium channel blockers, and ARBs are candidate drugs for the preventive treatment of unruptured IAs [1].

1)

Shimizu K, Imamura H, Tani S, Adachi H, Sakai C, Ishii A, Kataoka H, Miyamoto S, Aoki T, Sakai N. Candidate drugs for preventive treatment of unruptured intracranial aneurysms: A cross-sectional study. PLoS One. 2021 Feb 12;16(2):e0246865. doi: 10.1371/journal.pone.0246865. PMID: 33577580.