

Relationship between Achieved Blood Pressure, Dietary habits and Cardiovascular Disease in Hypertensive Patients Treated with Olmesartan: The OMEGA Study

We investigated the relationship between cardiovascular disease and the achieved blood pressure, dietary habits, and the presence/absence of metabolic syndrome (MetS) in hypertensive patients treated with olmesartan medoxomil. A prospective cohort study with 3-year follow-up was conducted in 14 721 olmesartan-naive outpatients (mean age: 64.9 years, 49.6% women) with essential hypertension. The association of cardiovascular disease with achieved blood pressure, dietary habits, and MetS was investigated by Cox proportional hazards analysis. There were 3 059 patients (31.8%) with MetS (Japanese criteria) among 9 625 evaluable patients. The mean baseline blood pressure was 157.4/88.8 mmHg and it decreased to 134.0/76.1 mmHg during treatment ($P<0.0001$). The annual incidence rate of cardiovascular disease was 7.15 per 1 000 persons during the study period. When the achieved blood pressure was stratified according to the Japanese Society of Hypertension Guidelines for the Management of Hypertension (JSH 2009), the risk of cardiovascular disease increased significantly along with the severity of hypertension ($P<0.0001$), especially the risk of stroke. Investigation of dietary habits revealed a significant association between salt intake and the risk of stroke. Higher salt intake was associated with a significantly higher risk of stroke than lower salt intake (hazard ratio, 1.897; 95% confidence interval, 1.003-3.590). Blood pressure was well controlled in both patients with and without MetS, and there was no significant difference in the incidence of events between the two groups. In conclusion, the severity of hypertension (achieved blood pressure) is associated with the incidence of cardiovascular disease, and the results of this study suggest that tight blood

pressure control and salt restriction are important for preventing stroke.