Clinical Commentary

Donepezil 23 mg in Asian patients with moderate-to-severe Alzheimer’s disease


Background – Ethnic diversity between different populations may affect treatment safety and efficacy. Aims and methods – A subanalysis to a global trial (study 326) was carried out to ascertain the safety and efficacy of donepezil 23 mg/day compared with donepezil 10 mg/day in Asian patients with moderate-to-severe Alzheimer’s disease. Changes in cognition and global functioning were measured by the Severe Impairment Battery (SIB) and Clinician’s Interview-Based Impression of Change Plus Caregiver Input (CIBIC-Plus), respectively, at week 24. Results – Cognitive improvement measured by SIB score was greater with donepezil 23 mg than with donepezil 10 mg (+1.36 vs –1.56; difference, 2.92). There was no difference between the groups in global function measured by the CIBIC-Plus (3.94 and 3.95, respectively). Overall, 119 patients (82.1%) receiving donepezil 23 mg and 56 (71.8%) receiving donepezil 10 mg experienced ≥1 treatment emergent adverse events (TEAEs). In the donepezil 23 mg group, the incidence of TEAEs was higher among patients of lower weight (<55 kg) at baseline than in those of higher weight (64 of 75 patients [85.3%] vs 55 of 70 patients [78.5%]). Conclusions – The benefits and risks associated with donepezil 23 mg in Asian patients are comparable to those of the global study population.

Introduction

The estimated prevalence of dementia worldwide was 36 million in 2010, which is expected to almost double every 20 years to 115 million by 2050 (1). There are expected to be 33.61 million people with dementia in East Asia by 2050 (1). The age-specific prevalence of dementia in Asia (3.9%) is now similar to the global rate (4.7%) (1).

Donepezil is a selective, reversible acetyl cholinesterase (AChE) inhibitor approved in the USA for treatment of mild, moderate, and severe AD. The standard dosage of donepezil of 5 mg or 10 mg daily has been associated with 20–40% inhibition of cortical AChE activity, suggesting that higher doses would increase AChE inhibition, possibly resulting in improved efficacy (2, 3).

Based on results from a large, 24-week, randomized, double-blind study (study 326; ClinicalTrials.gov: NCT00478205) comparing the efficacy and safety of donepezil 23 mg/day with the established standard dose of donepezil 10 mg/day (4), the US Food and Drug Administration has approved donepezil 23 mg/day, which is currently licensed in the USA, Hong Kong, South Korea, India, Philippines, Singapore, and Thailand.

The ethnic diversity of the Asian population in comparison with Western populations may affect the drug response with respect to safety...