Use of droxidopa for the long-term treatment of neurogenic orthostatic hypotension

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Orthostatic hypotension (OH) can cause serious and potentially disabling symptoms and is associated with an increased risk of morbidity and mortality, particularly because of hazards from falls.1 The 2018 European Society of Cardiology (ESC) guidelines for the diagnosis and management of syncope provide clinicians with important updates regarding the recognition and treatment of OH.2 These guidelines outline the utility of droxidopa as a treatment for symptomatic OH due to autonomic failure [neurogenic OH (nOH)] based on data from short-term Phase 3 clinical trials.

Recent data from a 12-month open-label extension study of droxidopa in patients with symptomatic nOH suggest the durability of benefits with long-term droxidopa treatment, including sustained increases in standing blood pressure and, more importantly, sustained improvements in patient-reported assessments of nOH symptom severity, in symptom effect on daily activities, and in the Clinical Global Impressions scale.3

The long-term efficacy of droxidopa treatment was also evaluated in a 6-month prospective study of patients with nOH initiating droxidopa treatment. This patient cohort reported improvements in falls, functionality, depressive symptoms, and health-related quality of life (HRQoL) with droxidopa treatment.4 Specifically, fewer patients reported a fall in the 1 month after initiating droxidopa treatment vs. the month before treatment (43% vs. 53%; P = 0.004); this reduced rate of falls was maintained at 6 months (40%; P = 0.034 vs. baseline). Other patient-reported assessments also showed significant improvements, including better functionality (Sheehan Disability Scale global scores, P ≤ 0.001), fewer depressive symptoms (Patient Health Questionnaire-9 scores, P < 0.01), and improved HRQoL (Short Form-8 scores, P ≤ 0.01).

Taken together, the results of these studies suggest that long-term treatment with droxidopa provides sustained benefits to patients with nOH, although there are limitations due to the lack of parallel control groups and the self-reported nature of the data. As noted in the ESC guidelines,2 further research into treatment options for OH and the clinical effects of droxidopa is warranted to better guide effective management of patients with this challenging clinical condition.

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