Monitoring long-term efficacy of fampridine in gait-impaired patients with multiple sclerosis

Linard Filli, Björn Zörner, Sandra Kapitza, Katja Reuter, Lilla Lorincz, David Weller, Tabea Sutter, Tim Killeen, Philipp Gruber, Jens Petersen, Michael Weller & Michael Linnebank

Objective:
To expand upon the limited knowledge of the long-term effects of prolonged-release (PR) fampridine in patients with multiple sclerosis (PwMS) regarding safety, walking improvements, and changes in drug responsiveness.

Methods:
Fifty-three PwMS who completed the FAMPKIN core study were included in this extension trial. Drug efficacy was assessed in an open-label and randomized double-blind, placebo-controlled study design with regular baseline assessments over a period of 2 years using the Timed 25-Foot Walk (T25FW), 6-Minute Walk Test (6MWT), and 12-item MS Walking Scale (MSWS-12) as outcome measures.

Results:
The data showed good tolerability and persisting efficacy of PR fampridine during long-term treatment in PwMS. Significant improvements in walking speed, endurance, and self-perceived ambulatory function were observed during open-label (T25FW: +11.5%; 6MWT: 10.7%; MSWS-12: 6.1 points) and double-blind controlled treatment with PR fampridine (T25FW: +13.1%; 6MWT: 11.9%; MSWS-12: 7.4 points). Several patients showed changes in drug responsiveness over time, resulting in an increased proportion of patients exceeding 10% or 20% improvements in walking measures after long-term treatment.

Conclusions:
Efficacy and tolerability data confirmed PR fampridine as a valuable long-term treatment for improving ambulatory function in gait-impaired PwMS. Similar results in open-label and double-blind phases reveal that the walking tests used are objective and reliable. The considerable proportion of patients in whom responsiveness to PR fampridine changed over time emphasizes the importance of regular reassessment of drug efficacy in clinical practice to optimize treatment. Such reassessments seem to be particularly important in patients with poor initial drug responses, as this group demonstrated enhanced
responsiveness after long-term treatment.

Clinicaltrials.gov identifier: NCT01576354.

Classification of evidence:
This study provides Class II evidence that PR fampridine significantly improved gait compared to placebo in a 2-week study in PwMS who had been using PR fampridine for 2 years.

type journal paper/review (English)
date of publishing 2-2-2017
journal title Neurology (February)