#1087: Siponimod Slows Physical Disability Progression and Decline in Cognitive Processing Speed in SPMS Patients with Active Disease: A Post Hoc Analysis of the EXPAND Study

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Type

Abstract

Topic

MS and related disorders

Category

ePoster or Oral

Background and aims

Siponimod significantly reduced confirmed disability progression (CDP) and cognitive processing speed (CPS) decline in the broad secondary progressive multiple sclerosis (SPMS) population (EDSS 3.0–6.5) in the EXPAND study. Siponimod received a positive CHMP opinion for the treatment of adult SPMS patients with active disease. Here, we assess the efficacy of siponimod on CDP and CPS in SPMS patients with active disease from the EXPAND study.

Methods

Analysis included 779 patients with active disease (presence of relapses in the 2 years before screening and/or >=1 gadolinium-enhancing T1 lesion at baseline); 516 received siponimod 2 mg and 263 received placebo in the EXPAND core part. Outcomes: time-to-3- and 6-month (3m/6m) CDP in all active disease patients and 6mCDP in further subgroups of patients with active disease based on prior treatment (any disease-modifying therapy [DMT], interferon at anytime and recent interferon use); and clinically meaningful (>=4-point change on Symbol Digit Modalities Test) sustained improvement/worsening in CPS in all active disease patients.

Results

Siponimod significantly reduced the risk of 3mCDP by 31% (p=0.0094) and 6mCDP by 37% (p=0.0040) versus placebo in all active patients and consistently in subgroups of patients switching from any DMT, interferon **at** anytime or recent interferon use (p<0.05 for all). Siponimod improved the chance of sustained improvement in CPS by 51% (p=0.0070) and reduced the risk of sustained worsening by 28% (p=0.0166) versus placebo (Table).

Efficacy parameter	Siponimod 2 mg N=516	Placebo N=263	HR (95% CI)	p-value
Disability progression				
3mCDP[a]				
SPMS patients with active disease	24.9% (128/515)	34.6% (91/263)	0.69 (0.53; 0.91)	0.0094
6mCDP[a]				
SPMS patients with active disease	19.0% (98/515)	28.1% (74/263)	0.63 (0.47; 0.86)	0.0040
Subgroups of patients with active disease				
Any DMT	20.3% (80/394)	29.1% (59/203)	0.67 (0.48; 0.94)	0.0203
Interferon at any time	21.2% (65/308)	29.9% (46/154)	0.68 (0.47; 1.00)	0.0496
Recent interferon	17.6% (36/205)	31.7% (33/104)	0.52 (0.32; 0.83)	0.0063
Cognitive processing speed				
SPMS patients with active disease				
Sustained[b] worsening in CPS[c]	27.3% (140/512)	38.2% (100/262)	0.72 (0.56; 0.94)	0.0166
Sustained[b] improvement in CPS[c]	34.2% (175/ 512)	22.9% (60/ 262)	1.51 (1.12; 2.04)	0.0070

[a]Based on EDSS score
[b]A change that continued until the end of the core part of the study, or occurred at the last assessment
[c]Measured by a >=4-point change on Symbol Digit Modalities Test
Data are presented as % (n/N); n is number of patients with events; N is number of patients included in the analysis
Number of patients in the subgroups: 597 in any DMT group; 460 in interferon at any time group; 309 in recent interferon group
CDP, confirmed disease progression; CI, confidence interval; CPS, cognitive processing speed; DMT, disease-modifying therapy; EDSS, Expanded Disability Status Scale; HR, hazard ratio; m, month; SPMS, secondary progressive multiple sclerosis

Table. Efficacy of siponimod on disability progression and cognitive processing speed in patients with active disease

Conclusion

In patients with active SPMS, siponimod significantly delayed disability progression in the entire group, and in subgroups defined by prior treatment, and showed significant benefits on CPS.

Disclosure

This study was funded by Novartis Pharma AG, Basel, Switzerland. A detailed disclosure from each author will be included in the oral/poster presentation.

Affirmations

Authors agreement: I confirm, that all authors mentioned in the author block of this abstract have been informed about, and agreed to this submission. (I confirm)

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