

Effects of Solriamfetol on Cognition in Patients With Excessive Daytime Sleepiness Associated with Narcolepsy in the Real-World SURWEY Study

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Key Question

- Does solriamfetol improve impaired cognition in patients with excessive daytime sleepiness associated with narcolepsy in a real-world setting?

Conclusions

- In this retrospective, real-world study, cognitive performance was assessed in patients with EDS associated with narcolepsy
- At baseline, patients reported overall cognitive impairment, which was substantially improved following 3 months of solriamfetol treatment
- At baseline, objective assessments revealed selective impairment in alertness and processing speed; substantial improvements in these domains were observed following treatment with solriamfetol
- Improvement in cognitive performance was not associated with reduction in EDS
- These results indicate that solriamfetol has the potential to improve cognitive function in patients with EDS associated with narcolepsy

References

- Fortuyn H, et al. *Gen Hosp Psychiatry*. 2010;32(1):49-56.
- Sharafkhaneh A, et al. *Sleep*. 2005 28(11):1405-11.
- Kim JY, et al. *JAMA Otolaryngol Head Neck Surg*. 2019;145(11):1020-1026.
- Garbarino S, et al. *Behav Sleep Med*. 2020; 18(1):35-57.
- Alnefeesi Y, et al. *Neurosci Biobehav Rev*. 2021;131:192-210.
- Gursahani H, et al W. *Sleep*. 2022;45(suppl 1):A329.
- Nin V, et al. *J Neurol Disord*. 2022;10:12.

Acknowledgments

The authors would like to thank the patients, study investigators, and study staff for their contributions to this research. This study was supported by Axsome Therapeutics, Inc., Jazz Pharmaceuticals, and Pharmanovia.

Disclosures

Y Winter has received honoraria for educational presentations and consultations from Axsome Therapeutics, Arvelle Therapeutics, Angelini Pharma, Bayer AG, Bial, Bioprojet Pharma, Bristol Myers Squibb, Eisai, Ethypharm GmbH, GW Pharmaceuticals, Idorsia Pharmaceuticals, Jazz Pharmaceuticals, LivaNova, Neuraxpharm, Novartis, and UCB Pharma.
G. Mayer has received honoraria for consultation and educational presentations by Idorsia, Pharmanovia, and Takeda.
U. Kallweit is on the advisory board at, is consultant to, and has accepted research support from Jazz Pharmaceuticals, Takeda Pharmaceuticals, and Bioprojet
H. Benes is on the advisory board of Takeda Pharmaceuticals and Idorsia Pharmaceuticals, and has received honoraria for educational presentations from Idorsia.
U. Kallweit is on the advisory board at, is consultant to, and has accepted research support from Jazz Pharmaceuticals.
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Introduction

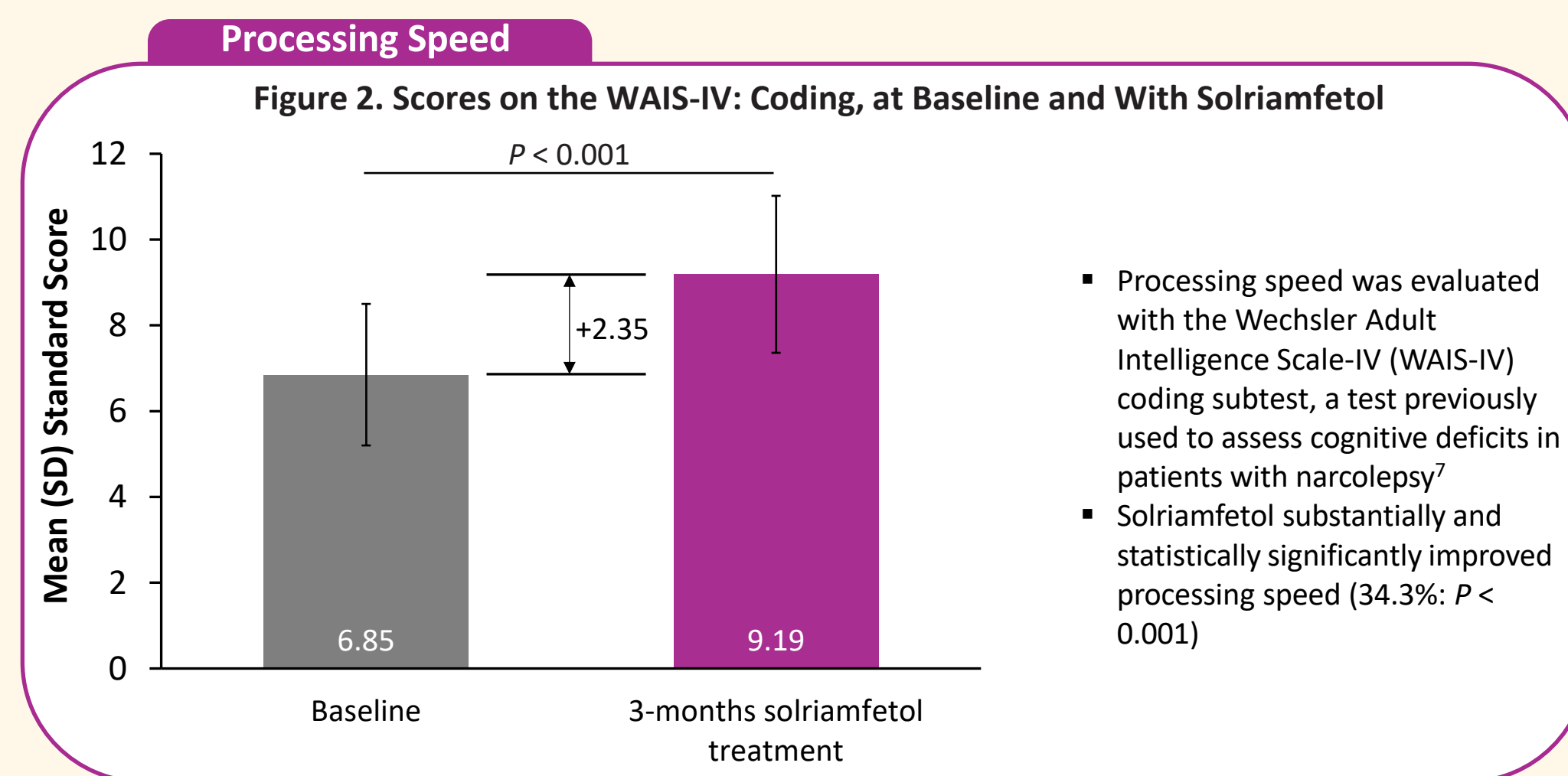
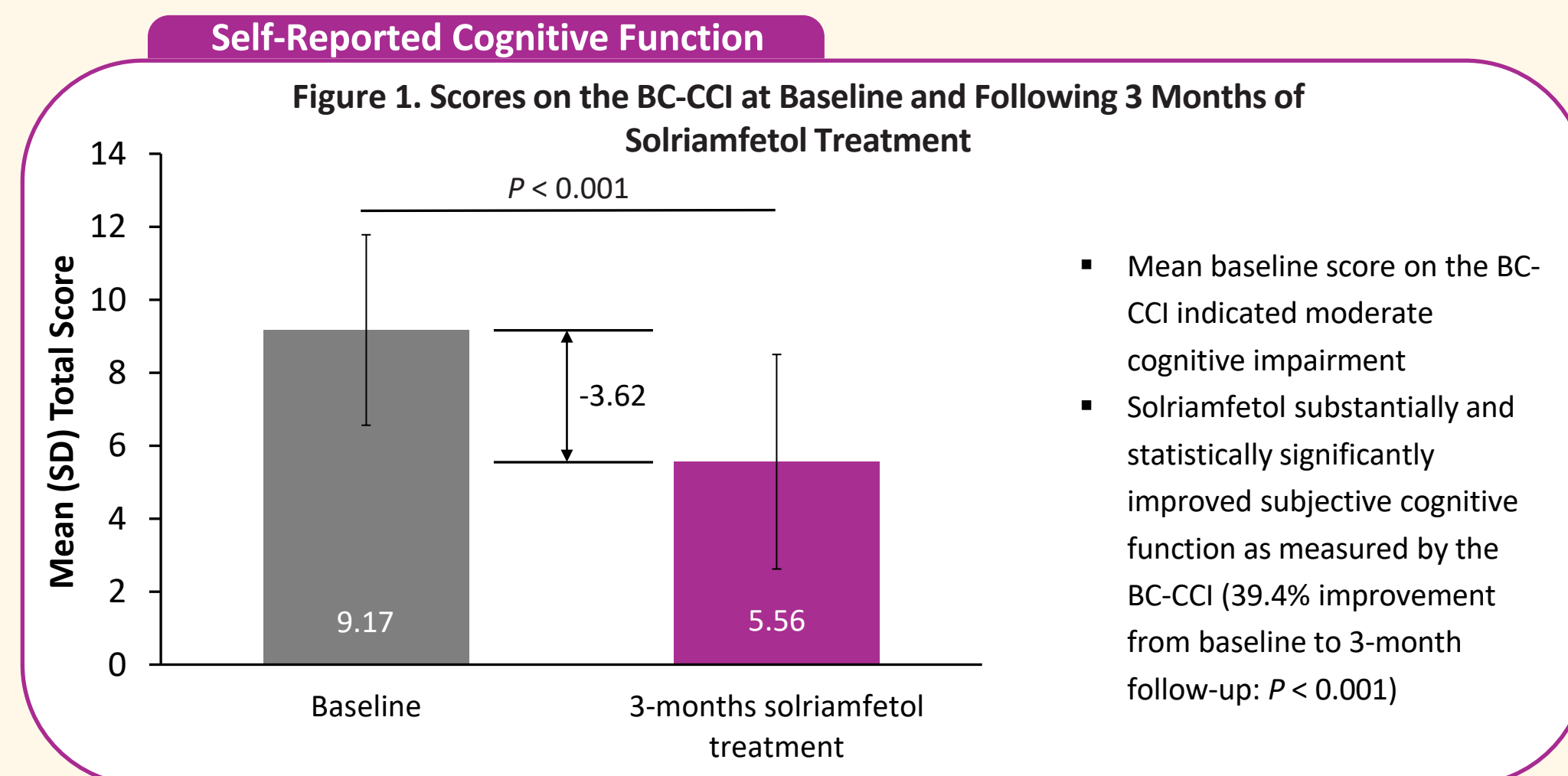
- Narcolepsy is a chronic sleep disorder characterized by excessive daytime sleepiness (EDS)¹
- Brain fog and difficulty concentrating are common complaints among patients and significantly impact their quality of life²
- Patients often exhibit deficits in processing speed and attention, core cognitive functions³
- Solriamfetol (Sunosi[®]) is a dopamine-norepinephrine reuptake inhibitor with agonistic properties at the trace amine-associated receptor 1 (TAAR1) and serotonin 1A (5HT_{1A}) receptor¹ approved for treatment of EDS associated with narcolepsy or obstructive sleep apnea (OSA)^{4,5}
- Solriamfetol improved cognitive performance in a clinical study of patients with OSA and EDS with cognitive impairment⁶
- Here we present cognitive outcomes of patients with narcolepsy and EDS treated with solriamfetol in a real-world setting

Key Findings

Patient Population

Patients	52
Age, mean ± SD	36.4±12.9
Sex	
Male, n (%)	29 (55.8)
Female, n (%)	23 (44.2)
ESS score, mean ± SD	17.4±2.9

Efficacy



Methods & Study Design

- SUNosi Real World Experience Study (SURWEY) was a real-world, retrospective chart review among physicians in Germany of patients prescribed solriamfetol for EDS associated with narcolepsy type 1 and 2
- The present analysis is of a subgroup of 52 patients with narcolepsy who underwent cognitive assessments (Table 1) prior to initiating solriamfetol and 3 months following
- Results are pooled across dosages, and most patients received less than 150 mg/day, the maximum recommended dose

Assessment	Task	Domain
British Columbia Cognitive Complaints Inventory (BC-CCI)	Rate level of impairment on 6 items including memory, concentration, and expressing thoughts	Cognitive impairment
Test of Attentional Performance (TAP): Alertness, without warning	Push button in response to displayed signal	Sustained alertness
Test of Attentional Performance: Alertness, with warning	Push button in response to displayed signal preceded by warning tone	Acute alertness
Wechsler Adult Intelligence Scale-IV (WAIS-IV): Coding subtest	Variation of the Digit Symbol Substitution Test; match symbols to numbers based on key	Processing speed
Regensburger Word Fluency Test (RWT): "S-words"	Write down as many words starting with 's' as possible in 1 minute	Verbal fluency
Regensburger Word Fluency Test (RWT): "Animals"	Write down as many animal names as possible within 1 minute	Verbal fluency
Wechsler Memory Scale (WMS): Visual Reproduction I	Reproduce displayed images from memory	Visual memory
Wechsler Memory Scale (WMS): Visual Reproduction II	Reproduce displayed images from memory, following a delay	Visual memory

