Impact of Seltorexant on Cognitive Performance of Adults with Major Depressive Disorder with Insomnia Symptoms

Submitter Amy Wegener

Affiliation Johnson & Johnson Innovative Medicine

SUBMISSION DETAILS

I agree to provide poster pdf for attendee download. Yes

I have used the poster abstract template to develop my abstract. Yes

Methodological Issue Being Addressed Impairments in cognitive performance arising as a symptom or functional consequence of major
depressive disorder (MDD) constitute a significant clinical problem. Cognitive functioning was evaluated using a novel iPad-administered cognitive test battery in adults with MDD and insomnia symptoms following adjunctive treatment with either seltorexant or quetiapine XR.

Introduction Many individuals with MDD experience inadequate response to standard therapies and have
residual symptoms, such as insomnia symptoms, and/or subsequent deficits in cognitive function. Cognitive deficits may be an important contributor to short- and long-term functional outcome in MDD. Here we evaluated cognitive performance at baseline, Week 10, and Week 26 in a randomized, double-blind study comparing adjunctive treatment with the selective orexin-2 receptor antagonist, seltorexant, versus quetiapine XR in adults with MDD and insomnia symptoms (MDDIS) with an inadequate response to current standard antidepressant therapy.

Methods Participants with MDDIS received either seltorexant (20 mg; n=366) or flexibly dosed quetiapine
XR (150/300 mg; n=390) administered adjunctively to the standard antidepressant (SSRI/SNRI) regimen to which they had been only partially responsive. Cognition was evaluated using the novel ReVeRe.D cognitive test battery, which consists of eight assessments based on classical neuropsychological tests spanning cognitive domains impacted in MDD: Symbol Sorting Test (SST), Digit Span Forward Test (DSFT), Digit Span Backward Test (DSBT), Word List Recall Test (WLRT), Visuospatial Block Recall Test (VBRT), Symbol Digit Matching Test (SDMaT), Trail Making Test (TMT-B), and the Block Maze Test (BMT). Change from baseline at Weeks 10 and 26 was assessed per treatment group.

Results On the SST (executive functioning), mean categories completed [SD] in the seltorexant group
improved compared to baseline at Week 10 (+0.38 [1.705]) and Week 26 (+0.53 [1.586]). The quetiapine XR group exhibited minimal improvement (Week 10: -0.01 [1.675]; Week 26: 0.12 [1.701]). Mean [SD] percent of perseverative errors in the seltorexant group improved from baseline by Week 10 (-1.36 [8.424]) and was maintained through Week 26 (-1.53 [7.542]). The quetiapine XR group exhibited minimal change in perseverative errors (Week 10: 0.06 [7.551];

Week 26: -0.50 [7.174]).
At Week 10, WLRT scores (verbal learning) improved from baseline in the seltorexant (0.90 [8.189]) and quetiapine XR groups (1.11 [12.255]). In the seltorexant group, this performance improvement continued through Week 26 (0.84 [8.004]); however, the quetiapine XR group declined by Week 26 (-0.27 [7.443]).
On the SMDaT (processing speed), the number of correct responses improved in seltorexant from baseline to Week 10 (2.02 [12.531]) compared with quetiapine XR (0.37 [11.334]). At Week 26, improvement (3.22 [13.074]) remained higher for seltorexant compared with quetiapine XR (1.87 [13.345]).

Conclusion Results suggest that seltorexant had greater long-term cognitive improvements on specific
neurocognitive domains, including executive function, verbal learning, and processing speed, as compared with quetiapine XR. Minimal group differences in change in other cognitive domains suggest a selective effect that is not due to other factors (i.e., practice effects) and is relevant to functional impairment observed in MDD.

Co-Authors

Amy Wegener[1], Ryan Kelly[1], Yun Zhang[1], Randall Morrison[1], Yanina Flossbach[1], Sofie Mesens[1], Wayne Drevets[1], Gahan Pandina[1]

[1] Johnson & Johnson Innovative Medicine

Keywords

Keywords
Depression
cognition
reliable change index
adjunctive therapy

Guidelines I have read and understand the Poster Guidelines

Disclosures All authors are current/former Johnson & Johnson employees; hold stock in Johnson & Johnson.