Effects of SHP465 mixed amphetamine salts in adults with ADHD in a simulated adult workplace environment.

Wigal T, Childress A, Frick G, Yan B, Wigal S, Madhoo M.


Abstract

OBJECTIVES:
Evaluate the efficacy, duration of effect, and safety of 25 mg SHP465 mixed amphetamine salts (MAS) extended-release versus placebo in adults with attention-deficit/hyperactivity disorder (ADHD).

METHODS:
Adults (18-55 years) with ADHD and with ADHD Rating Scale-IV (ADHD-RS-IV) scores ≥24 were randomized to treatment in a double-blind, 2-period, 2-treatment crossover study utilizing the Adult Workplace Environment (AWE), as described by Wigal and Wigal (J Atten Disord 2006;10:92-111). On day 7 of each 7-day treatment period, efficacy was assessed during a 16.5-hour postdose period. The primary endpoint, Permanent Product Measure of Performance (PERMP) total score, was analyzed in the intent-to-treat population using a mixed linear model of analysis of variance. Secondary endpoints, for which the study was not powered, included PERMP problems attempted and answered correctly, ADHD clinician ratings based on counselor observations and inputs during the Time Segment Rating System (Co-ADHD-RS TSRS), and the ADHD self-rating scale (ADHD-SRS). Safety and tolerability assessments included treatment-emergent adverse events (TEAEs) and vital signs.

RESULTS:
The least squares mean (95% CI) treatment difference (SHP465 MAS-placebo) for PERMP total score significantly favored SHP465 MAS over placebo when averaged across all postdose assessments (19.29 [10.95, 27.63]; P < 0.0001), with significant treatment differences favoring SHP465 MAS over placebo observed at 4-16 hours postdose (all P < 0.01). TEAEs observed with SHP465 MAS (≥5% of participants) included insomnia, decreased appetite, dry mouth, headache, and anorexia. Mean pulse and blood pressure increases with SHP465 MAS exceeded those of placebo.

CONCLUSIONS:
SHP465 MAS (25 mg) was superior to placebo on PERMP total score, with treatment differences observed from 4 to 16 hours postdose; nominal treatment differences on the ADHD-SRS, but not the Co-ADHD-RS TSRS, were also observed. The safety and tolerability profile of SHP465 MAS was similar to previous reports for SHP465 MAS and other long-acting stimulants.