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LONG-TERM MAINTENANCE OF EFFICACY OF EXTENDED-RELEASE GUANFACINE HYDROCHLORIDE (GXR) IN CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD): DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTRE, PHASE 3 RANDOMIZED WITHDRAWAL STUDY

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Introduction: GXR,a selective α2A-adrenergic agonist, is a non-stimulant ADHD treatment approved in the USA for children and adolescents, and in Canada for children.

Objectives: To evaluate long-term maintenance of efficacy of GXR in children and adolescents with ADHD who respond to an initial open-label, short-term trial.

Aims: To determine if there is a higher rate of treatment failure for placebo vs GXR during the double-blind randomised-withdrawal phase (RWP) (NCT01081145).

Methods: Patients (6–17 years) meeting DSM-IV-TR criteria for ADHD, baseline ADHD Rating Scale-IV (ADHD-RS-IV) ≥32 and Clinical Global Impressions-Severity (CGI-S) ratings ≥4 were enrolled. Following 7-week dose optimization and 6-week maintenance periods on open-label GXR (1–7 mg/day), eligible patients entered a 26-week, double-blind, RWP with GXR or placebo. The primary endpoint was rate of treatment failure (≥50% increase in ADHD-RS-IV total score and ≥2-point increase in CGI-S at two consecutive visits, compared to the RWP baseline). The key secondary endpoint was time-to-treatment failure. Safety assessments included treatment-emergent adverse events (TEAEs), electrocardiograms and vital signs.

Results: Of 528 patients enrolled, 316 (60.0%) entered the RWP. At study end, 49.3% (GXR) and 64.9% (placebo) (95%CI; -26.6, -4.5, p<0.01) of patients had relapsed (Figure). Time-to-treatment failure was 56 days (placebo) versus 218 days (GXR), p=0.003. During the RWP, the most common GXR TEAEs (≥5% patients) were headache, somnolence and nasopharyngitis.

Conclusions: GXR demonstrated long-term maintenance of efficacy versus placebo in children and adolescents with ADHD.

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