Presence of significant childhood ADHD symptoms was associated with younger age, a greater proportion of men, a higher number of previous major depressive episodes, a younger age at occurrence of the first episode, greater anxiety and depression levels and lower global functioning. Patients with significant developmental ADHD symptoms were more likely to report lifetime symptoms of mania or hypomania and to have a parent with bipolar disorder type I or II. Among different factors (such as the number of major depressive episodes, the general level of functioning and parental bipolar disorder), significant childhood ADHD symptoms were a significant predictor of lifetime bipolar symptoms (Exp(B) = 1.57; $p < 0.001$).

In patients with major depressive disorder, childhood ADHD symptoms were more likely when a parent had a bipolar disorder and also contributed independently to lifetime mania/hypomania. Our results suggest that childhood ADHD symptoms are likely to influence the clinical characteristics of adult major depressive episodes, especially as regards bipolar spectrum symptoms. Therefore, the detection of past ADHD symptoms in adults should be more systematically assessed in adults with major depression.

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S.26.03 Metadoxine: a novel non-stimulant extended-release drug for treating ADHD

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Background: Metadoxine (pyridoxol L-2-pyrrolidone-5-carboxylate) has been preliminarily shown to improve cognitive function in our previous studies. This trial examined the safety and efficacy of Metadoxine by evaluating improvements in core Attention Deficit and Hyperactivity Disorder (ADHD) symptoms and associated functional outcomes and Quality of Life in adults.

Methods: Adult males and females (aged 18–50 years old, inclusive) who met DSM IV criteria for ADHD were randomly assigned in a 1:1 ratio to one of two treatment groups, MG01CI (extended-release Metadoxine, 1,400 mg) and matching placebo, for a 6-week double-blind parallel treatment period. The primary efficacy measure was the Conners' Adult ADHD Rating Scale (CAARS-Inv:SV) with adult ADHD prompts. Other assessments included the Adult ADHD Quality of Life-29 (AAQOL-29) scale and the Test of Variables of Attention (TOVA).

Results: Significant improvements in CAARS Total ADHD Symptoms Score (-12.5 ± 1.18SE vs. -8.93 ± 1.24, $p < 0.02$), TOVA ADHD score (5.07 ± 1.19 vs. 3.01 ± 0.86, $p < 0.02$), and AAQoL Total scores (11.02 ± 1.50 vs. 5.71 ± 2.13, $p < 0.01$) were observed in the MG01CI group as opposed to the placebo group, respectively. Improvements in CAARS and TOVA were statistically significant within 2 weeks. Subjects with ADHD inattentive type ($n = 48$) showed an even greater improvement in CAARS scores over placebo (-13.4 ± 1.9 vs. -6.3 ± 1.4, $p < 0.05$). MG01CI was associated with a favorable safety profile, the only side effects being nausea (13%).

Conclusion: Findings indicate that MG01CI is a well-tolerated and effective treatment for adults with ADHD>

Disclosure statement: I am the PI of this study

S.26.04 Comorbidity between ADHD and bipolar disorder

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One of the most controversial issues in the diagnosis and treatment of attention deficit hyperactivity disorder (ADHD) is the co-occurence of bipolar disorder. Disordered attention, activity and speech overlap between the two disorders. In addition, children with bipolar disorder are often irritable during and between mood episodes, which can be attributed in part to presence of ADHD or oppositional defiant disorder (ODD), depression and generalized anxiety disorder, that are often comorbid with ADHD [1]. The rates of bipolar disorder in children with ADHD vary widely – from less than 2% to 23% [2] – and depend in part on how the diagnosis of bipolar disorder is made. In samples of children with bipolar disorder, the rate of ADHD has been reported to vary between 4% and 98% [1,3]. Some of the controversies associated with the identification of this comorbidity become evident with these variations in prevalence estimates. Moreover, a recognizable feature of children with ADHD is affective lability which can be challenging for the clinician. Subjective states of elation and grandiosity, the primary characteristics of mania are not readily apparent in pre-adolescent children and symptoms are expressed as extreme excitement and driven behavior. The key to the bipolar diagnosis is the episodic nature of the illness, however some cases exhibit a non-episodic chronic presentation with irritability which overlaps with symptoms of ADHD and especially ODD. This pattern of behavior, named as severe mood dysregulation, is found to predict anxiety and depression rather than being a developmental presentation of bipolar disorder [1].

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