

Background and Aims: Modafinil improves the residual excessive daytime sleepiness (EDS) in patients who remain sleepy despite nCPAP therapy however, its effects on cognitive performance in this group of OSA patients have been equivocal. In the present study we examined the effects of a single modafinil dose on cognitive performance in newly diagnosed OSA patients, prior to the onset of nCPAP therapy.

Methods: Twelve unmedicated patients recently diagnosed with Obstructive Sleep Apnea (OSA) following polysomnography, entered into a double-blind, randomized, placebo-controlled crossover study using a single 200 mg dose of modafinil. The Cambridge Neuropsychological Test Automated Battery (CANTAB) and Visual Analogue Scales (VAS) were used.

Results: Consistent with its alerting effects, modafinil increased VAS-rated alertness and improved visual and sustained attention (CANTAB Reaction Time Tests and RVIP). There was a trend for improvement in VAS-rated mood and anxiety. Modafinil improved problem solving performance (CANTAB Stockings of Cambridge) which was accompanied by prolonged thinking times. A similar pattern of improvement with improved recall coupled by prolonged response times was seen in the CANTAB Delayed Matching-To-Sample test of visual memory.

Conclusions: This modafinil-induced alteration in the speed-accuracy trade-off has been previously seen in healthy subjects and adults with ADHD and indicates that modafinil increases the ability to “reflect” on problems coupled with decreased impulsive responding. If these benefits are shown to be maintained with chronic administration, modafinil may have potential as an important therapy for OSA patients with residual EDS following nCPAP therapy.

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Olanzapine on effect of cognitive control in schizophrenia

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Background and Aims: Cognitive dysfunction is a major component of schizophrenia, with deficits in executive function particularly pertinent to successful daily living and outcome. The objective of this study was to explore the long-time efficacy of Olanzapine in the treatment of cognitive control in schizophrenia.

Method: 36 cases of patients maintained treated with Olanzapine and 30 cases of patients treated with chlorpromazine were included in the 6 months follow-up study. Cognitive control was tested with Wisconsin card sorting test (WCST) and Trail Making.

Results: At the time of 6 months all the scores of total trial, sorts, perseverative errors and random errors on WCST and all target of Trail Making Test were significantly decreased in the two groups of patients ($P < 0.05$ or $P < 0.01$) but the decreased rate of perseverative errors on WCST of Olanzapine group were significantly higher than that of chlorpromazine group ($P < 0.01$).

Conclusion: Olanzapine have a good efficacy in the long-time treatment of cognitive control in schizophrenia.

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Adjunctive galantamine's effect on functioning in schizophrenia: No clear benefit

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Background and Aims: Several case reports and small, placebo-controlled-trials have reported improvements in cognition and negative symptoms when galantamine has been prescribed adjunctively to patients with schizophrenia. We report our findings from a nine-month, open-label, pilot study to evaluate the long-term efficacy of adjunctive galantamine for the treatment of functional impairments in outpatients with chronic schizophrenia or schizoaffective disorder.

Methods: Fourteen outpatients were initiated to open-label treatment with galantamine (8, 12 or 24 mg/day, dependent on tolerance with a target dose of 24 mg/day). The primary outcome measures were competence in activities of daily living as assessed with the Independent Living Scale (ILS), quality of life as assessed with the Quality of Life Scale (QLS), and negative symptoms as measured with the Scale for the Assessment of Negative Symptoms (SANS).

Results: Of the 14 subjects who began treatment, six subjects completed the nine-month study. No significant changes were observed between baseline and either end of study or month 5 on any of the outcome measures. Three subjects withdrew due to an exacerbation of psychotic symptoms and/or a lack of treatment response; one withdrew due to weight gain; and four withdrew for reasons unrelated to the study drug. After a few months treatment, three subjects experienced an overall increase in activation and an associated increase in psychotic and mood symptoms.

Conclusion: Treatment with adjunctive galantamine did not yield functional improvements and may have been associated with agitation and decompensation. Clinical caution and further research are warranted.

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Neuroradiologic evidence of dopaminergic involvement in idiopathic basal ganglia calcification

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Background and Aims: Idiopathic basal ganglia calcification (IBGC) is a neuropathological finding known to manifest motor disturbance, cognitive impairment and psychiatric symptoms. Pathophysiology of psychiatric symptoms, however, remains controversial. Previous biochemical study suggests that dopaminergic impairment is involved in IBGC. We therefore performed positron emission tomography (PET) to elucidate the pre- and postsynaptic dopaminergic function and glucose metabolism in two IBGC patients.

Methods: Case 1 is a 44 years old woman presented with disorganized thought, echolalia, verbigeration and parkinsonism. She was administered bitemporal electro-convulsive therapy (ECT). Case 2 is a 35 years old woman with persecutory delusion. Computed