Pharmacology and efficacy of asenapine for manic and mixed states in adults with bipolar disorder

Expert Rev. Neurother. 10(5), 645-649 (2010)

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Asenapine sublingual is a novel atypical antipsychotic approved in August 2009 for the acute treatment of schizophrenia, as well as for manic or mixed episodes as part of adult bipolar I disorder. Asenapine's in vitro profile is similar to other atypical antipsychotic agents insofar as there is higher affinity for serotonin 5-HT_{2A} versus dopamine D_2 receptors. Asenapine exhibits a unique effect on monoamine, histamine and muscarinic receptor affinities, as well as effects on NMDA and AMPA receptors. This pharmacodynamic signature may mediate its symptom relief in positive, negative and mood symptoms, as well as conferring upon this agent an improved tolerability and safety profile when compared with some atypical agents. Asenapine has a relatively low propensity for changes in metabolic parameters, body composition, sedation/somnolence and extrapyramidal side effects, and is not associated with prolactin elevation or clinically significant electrocardiographic changes. Asenapine is available only in sublingual formulation, which has advantages (e.g., patient acceptance, compliance, difficulty swallowing) as well as disadvantages (i.e., patients are encouraged not to eat or drink within 10 min of administration). Its efficacy in mania is unequivocally established as is the sustaining of its acute antimanic effect. Its antidepressant and recurrence prevention effects in bipolar disorder are under investigation, as is its possible role in major depressive disorder.

Key issues

- Asenapine is the first rapidly absorbed fast dissolving atypical antipsychotic.
- Asenapine is indicated for the treatment of adults with acute manic or mixed episodes with or without psychotic features, as well as adults with schizophrenia.
- Asenapine is associated with weight gain and extrapyramidal side effects.
- Asenapine was not associated with clinically significant alterations in glucose and/or lipid homeostasis in short-term trials.
- Asenapine was not associated with clinically significant changes in peripheral prolactin measures or electrocardiographic parameters.