Mirtazapine is a piperazine antidepressant that also displays anxiolytic, hypnotic, antiemetic, and orexigenic activity. Mirtazapine acts as an antagonist at 5-HT2/3 receptors, an indirect agonist at 5-HT1 receptors, and an antagonist at α2-adrenergic receptors, enhancing NE and 5-HT neurotransmission. The sleep-inducing hypnotic effects are mediated through mirtazapine's inverse agonism at histamine H1 receptors, although tolerance to this effect develops during chronic use. Clinically, mirtazapine improves the withdrawal symptom profile and aids in preventing relapse in recently abstinent substance abusers in a manner similarly to other antidepressants. This compound also shows efficacy in treating behavioral complications associated with autism spectrum disorder and pervasive developmental disorder.

References


