A review of Efficasy and Safety of Brexpiprazole for Treatment of Schizophrenia

Andhale KK

Dr Vitthalrov Vikhe Patil Foundations College of Pharmacy Ahmednagar

Introduction

Brexpiprazole has US Food and Drug Administration approval on July 10, 2015 monotherapy treatment of schizophrenia and adjunctive treatment to antidepressants for major depressive disorder. It is an Antipsychotic drug. Brexpiprazole is a serotonin-dopamine activity modulator that acts as a partial agonist at serotonin 5-HT1A and dopamine D2 receptors at similar potencies and as an antagonist at5-HT2Aand noradrenaline alpha1B/2Creceptors.These all lead to a favorable antipsychotic profile in terms of improvement of cognitive performance and sleep patterns, as well as effects on affective states and potential to treat core symptoms in Schizophrenia and major depressive disorder, including cognitive deficits with a low risk of adverse effects .Schizophrenia is a serious mental illness that interferes with a person's ability to think clearly, make decisions ,manage emotions and relate to others. It is a complex, long-term medical illness.

- Keywords: brexpiprazole, schizophrenia, Major Depressive Disorder, atypical Antipsychotic.

(BREX) is an atypical antipsychotic medication. It works by changing the action of Chemicals in the brain.[1] It is a dopamine D2 receptor partial agonist and has been described as a "Serotonin Dopamine Activity Modulator" (SDAM). The drug received FDA approval on July 10, 2015 for the treatment of Schizophrenia, and as an adjunctive treatment for depression.Partial agonists have both blocking properties and stimulating properties at the receptor they bind to. The ratio of blocking activity to stimulating activity determines a portion of its clinical effects.BREX has more blocking and less stimulating activity than its predecessor, aripiprazole, which may decrease its risk for agitation and restlessness. It is also an antagonist of the serotonin 5-HT2A, 5-and 5-HT7 and the α1A-, α1B-, α1D-, and α2C-adrenergic Receptors. The drug has negligible affinity for the muscarinic Acetylcholine receptors, and hence has no anticholinergic effects.

Short term Study

Kane et al conducted a pooled analysis of randomized, double-blind, placebo-controlled studies of brexpiprazole published to date with a focus on its adverse effect profile,[28] which demonstrated that, of all the treatment emergent adverse events (TEAEs) reported in ≥5% of patients receiving brexpiprazole ≤4 mg/day (n = 1163), none occurred twice or more often in those receiving placebo (n = 463) and that akathisia occurred in a small proportion (5.8%) of those receiving brexpiprazole (compared to 4.5% of those receiving placebo) early with its incidence shown to peak 8–11 days after initiation of brexpiprazole

Long term Study

In the relapse prevention trial conducted by Fleischhacker et al described [17] , the incidence of TEAEs was shown to be 43.3% in those receiving brexpiprazole 1–4 mg/day (n = 97) as compared to 55.8% in those receiving placebo (n = 104), with the incidence of TEAEs leading to treatment discontinuation being 5.2% in those receiving brexpiprazole compared to 11.5% in those receiving placebo; No TEAEs, including akathisia and weight gain, occurred twice or more frequently in those receiving brexpiprazole than in those receiving placebo. Again, in the maintenance phase of treatment, the study revealed a mean change in body weight of −0.3 kg in those receiving brexpiprazole, as compared to 2.2 kg in those receiving placebo, while the two groups were shown to be comparable with regard to the extrapyramidal symptoms

Conclusion

Brexpiprazole is an antipsychotic drug and it works by changing the action of hormones in the brain. The treatment is both short and long term studies .The brexpiprazole shows favourable safety , tolurability and efficacy .Breexpiprazole shows more effective drug as compare to Aripiprazole because it shows low side effect .