

## **Abstract**

**Background:** About fifty percent of the obsessive compulsive disorder (OCD) patients might still suffer significant symptoms even after the proper first line therapy which clearly demonstrates the need to investigate strategies to increase the symptoms alleviation.

**Objective:** The main objective of this study was to investigate the efficacy of 5-hydroxytryptophan 3 receptor antagonist, tropisetron, as adjuvant therapy to SSRI, in ameliorating OCD symptoms.

**Methods:** Men and Women between the ages of 18 and 60 years with a diagnosis of obsessive compulsive disorder, based on DSM 5, who had Yale-Brown obsessive compulsive scale score of more than 21, were recruited in a double-blinded, parallel-group, placebo-controlled clinical trial of 10 weeks to receive either tropisetron (5 mg twice daily) and fluvoxamine (100 mg daily initially followed by 200 mg daily after week 4) or placebo and fluvoxamine. Primary outcome of interest to this study was Yale-Brown obsessive compulsive scale total score decrease from baseline.

**Results:** One hundred and eight participants were equally randomized into two groups. Ninety-six (equal number in each group) finished the trial. Yale-Brown obsessive compulsive total score significantly dropped in both groups while the tropisetron group participants experienced a significantly higher decrease in their scores (Greenhouse-Geisser  $F(1.53, 65.87) = 3.516, P\text{-value} = 0.04$ ). No major adverse effect was observed in any of the groups.

**Conclusion:** This trial showed a significant efficacy for tropisetron over placebo in treatment of OCD symptoms when added to fluvoxamine.