

## **Abstract:**

Since stuttering is a common talking disorder in people of all ages and the improvement of verbal skills is one of the necessities of childhood, so it is necessary to attend to verbal problems from the same childhood ages 2 to 4 when the age of onset of this disorder. The standard treatment for stuttering is speech therapy, and no drug has been specifically used for this disorder. On the other hand, the drug atomoxetine, which is currently used in the treatment of Attention-Deficit Hyperactivity Disorder (ADHD), appears to be due to pharmacological mechanisms such as selective inhibition of norepinephrine reuptake and its dopaminergic properties. It seems to have an effect on stuttering. Therefore, we decided to conduct a clinical trial to evaluate the efficacy of this drug in patients with stuttering.

**Materials and Methods:** One hundred patients with stuttering age range of 4-12 years who referred to pediatric neurology clinic were divided into experimental (n = 50) and control (n = 50) groups. One group received atomoxetine and were referred for speech therapy and the other group was treated with speech therapy and placebo. At the first visit and 3 months after the intervention, both groups completed the Stuttering Severity Questionnaire (SSI4) and the results were statistically analyzed.

**Results:** The severity of stuttering decreased in both experimental and control groups after 3 months of treatment, but the stuttering intensity was significantly lower in the experimental group. The severity of stuttering was highest in 60-95 month olds. In left-handed patients, patients with a positive family history, breastfeeding, and patients with insecurity were more severe in the stuttering family. However, the severity of stuttering was not significantly correlated with

gender, co-morbidity with ADHD, multilingualism, hours of television viewing, acoustic or motor ticking, hours of sleep, and pacifier use.

**Conclusion:** Atomoxetine is effective in the treatment of stuttering disorder with speech therapy and can be used as adjunctive therapy along with speech therapy.

**Keywords:** Stuttering-Atomoxetine-Speech Therapy