Investigating the Efficacy of Paroxetine in Developmental Stuttering

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Objectives: Paroxetine has been reported to be useful for management of stuttering symptoms, but only a few reports have examined its effects. We have investigated the efficacy of paroxetine in a randomized, placebo-controlled study.

Methods: Five stuttering subjects received paroxetine at 20 mg once daily at night for 12 weeks, and 5 received placebo. The percentages of stuttered words and stuttering-associated movements during speech were measured at baseline and after 6 and 12 weeks of treatment. Moreover, left primary motor cortex excitability was measured using transcranial magnetic stimulation. Specifically, resting and active motor thresholds and the cortical silent period (CSP) were obtained at the same periods in both groups.

Results: Paroxetine did not affect the percentage of stuttered words between groups. Stuttering-associated movements, however, during speech in facial muscular districts were significantly reduced in subjects treated with paroxetine. Finally, paroxetine administration shortened the CSP with no effect on motor thresholds.

Conclusion: Paroxetine may be useful in qualitative management of stuttering symptoms and may act on the stuttering brain by diminution of intracortical inhibition, as revealed by the shortening of the CSP after paroxetine administration.

Key Words: associated movements, paroxetine, silent period, stuttering, transcranial magnetic stimulation

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Developmental stuttering is a chronic handicap and can be affected by anti-stuttering drugs and treatments. In addition, stuttering, which can be defined as the involuntary interruption of the spoken word, is characterized by repeated syllable repetitions. Several studies have been performed on the efficacy of treatments for stuttering.

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Fluency Measurements

Eight 28.8-year-old subjects were assigned to either a treatment or a placebo group over the 12 weeks of the study. The percentage of stuttered words was the primary outcome measure. Placebo or paroxetine was administered daily at night for 12 weeks. The percentage of stuttered words was measured at baseline and after 6 and 12 weeks of treatment.

None of the participants reported any adverse effects of paroxetine administration. The percentage of stuttered words significantly decreased from baseline to the end of the study in both groups. The placebo group also showed a decrease in the percentage of stuttered words, but the decrease was not statistically significant.

Conclusion: Paroxetine may be useful in qualitative management of stuttering symptoms and may act on the stuttering brain by diminution of intracortical inhibition, as revealed by the shortening of the CSP after paroxetine administration.

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