Letter to the Editor:

Combination of Atomoxetine and Methylphenidate in Attention Deficit/Hyperactivity Disorder: A Case Report

Dear Editor,

Clinicians use atomoxetine (ATM) in combination with psycho-stimulants in attention deficit hyperactivity disorder (ADHD) although no data is available in this regard (Pliszka et al., 2006). We report a case in which the combination of ATM and methylphenidate (MPH) was found to be effective in controlling the core symptoms of ADHD. This individual was a participant in a 6 week open trial of ATM in children and adolescents with ADHD. The trial was approved by the institutional ethics committee and parental informed consent was obtained. In this trial, if the subjects were on MPH, they were given ATM and MPH was tapered off in 3 weeks. Pre- and post-treatment haemogram, liver function test, kidney function tests and ECG were done.

An 8-year-old boy (A.) was referred to us by his schoolteacher for being overactive in the class for 4 years. He was diagnosed to have ADHD, combined type, on the Kiddie Schedule for Affective Disorder and Schizophrenia-Present and Lifetime version (K-SADS-PL). His baseline score on ADHD-Rating Scale (ADHD-RS) was 50. He was given immediate release MPH and the dose was gradually increased to 50 mg/day in 3-4 divided dosages. There was a definite improvement in the symptoms and his score on ADHD-RS decreased to 10. However, after 6 months he appeared to develop tolerance to MPH. The effect of one dose would last for only two hours necessitating higher and more frequent dosing. There were complaints of decreased appetite and delayed onset in sleep with MPH. In view of the above it was decided that the patient should be switched over to ATM. ATM was started at a dose of 0.5 mg/kg/day and gradually increased to 1.2 mg/kg/day and MPH was gradually tapered in 3 weeks. He was well improved on the combination of 1.2mg/kg/day ATM and 10 mg/day MPH. His ADHD-RS score was 10. This indicated that the effect of the ATM-MPH combination to be same as 50 mg/day of MPH monotherapy. His problems of delayed onset of sleep and decreased appetite also improved. There were no additional side effects. However, as soon as methylphenidate was stopped his symptoms markedly increased and his scores on ADHD-RS increased to 40.

A. appeared to develop tolerance to MPH but responded well to the combination. Fewer side effects were reported with the combination as compared to MPH monotherapy likely due to the lower dosage of MPH. In A. ATM monotherapy after the MPH taper off, was less effective than the combination therapy as shown by rise in ADHD-RS scores.

Clinicians are using low doses of atomoxetine (0.5 – 1.0 mg/kg/day) in combination with stimulants in patients where atomoxetine and stimulants alone are not able to improve symptoms adequately (Pliszka et al., 2006). This combination may be used more often in patients who are not able to tolerate high doses of methylphenidate or develop tolerance to it. However, there is a need to carry out a randomized controlled trial of the combination of atomoxetine and stimulants to examine the efficacy and tolerability of this combination.

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References

Pliszka, S. R., Crismon, M. L., Hughes, C. W. et al. (2006). The Texas children's medication algorithm project: revision of the algorithm for pharmacotherapy of attention deficit/hyperactivity disorder. *Journal of American Academy of Child and Adolescent Psychiatry*, *45*, 642-657.

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