Letter to the Editor

Efficacy of Duloxetine and Agomelatine Does Not Exceed That of Other Antidepressants in Patients With Autistic Disorder: Preliminary Results in 3 Patients

To the Editor: Autistic disorder is characterized by qualitative impairments in reciprocal social interaction, verbal and nonverbal communication, and imaginative activity with a markedly restricted repertoire of activities and interests. The development of efficacious and safe therapeutic interventions remains an area of significant need in this disorder. Additionally, hyperactivity, poor attention span, and impulsivity are often prominent associated clinical features and have been target symptoms in previous medication trials.[1]

In an earlier open trial of dextroamphetamine, autistic children had an adverse response.[2] Jaselskis et al[3] report poor efficacy of clonidine treatment of hyperactive autistic children. Open trials suggested that methylphenidate[4] and atomoxetine[5] use in hyperactive autistic children may ameliorate hyperactivity, inattention, and impulsivity in children with autistic disorder. Neuroleptics are somewhat effective in reducing hyperactivity, impulsivity, and inattention in children with autistic disorder.[6] However, chronic use of neuroleptics may be complicated by cognitive blunting and the often irreversible side effect of tardive dyskinesia.[7] Atypical neuroleptics are also somewhat effective and are associated with fewer adverse side effects.[8]

Antidepressants (tricyclic antidepressants and selective serotonin reuptake inhibitors) have been reported to have some effect, especially on target symptoms of anxiety and repetitive behaviors, but include the risk of agitation.[9,10] Therapeutic effects in other disorders with similar target symptoms may guide development of treatments for children with autistic disorder. This switch leads to the hypothesis that new antidepressants could have unexpected effects in patients suffering from autism.

Duloxetine is a serotonin and norepinephrine agonist mainly used in treating depression. It has been described to have few side effects (dizziness, headache, and paresthesia) and almost no abuse liability or sedative effects, compared to benzodiazepines. Agomelatine is a new antidepressant that raises serotonin level and enhances melatonin production. It has also been described to have few side effects (dizziness, headache, and paraesthesia) and almost no abuse liability or sedative effects, compared to benzodiazepines.

Because of the actions and favorable side effect profile of duloxetine and agomelatine, we hypothesized that both could improve autistic symptomatology.

Case report. Two male patients with autistic disorder, recruited from the community and diagnosed by *ICD-10* criteria, completed our 10-week trial of duloxetine (40 mg daily); a third patient received agomelatine (25 mg daily). Full-scale IQs were between 41–79 (Wechsler Intelligence Scale Revised[11]). The patients' eye contact and expressive language[12] were inadequate for their developmental level. They had not tolerated or responded to other psychopharmacologic treatments. Blood pressure and possible side effects were checked weekly by an interview. Ratings on the Aberrant Behavior Checklist factors were as follows (duloxetine/agomelatine, with values for duloxetine representing the mean for the 2 patients): irritability (before treatment 13.8/13, after treatment 11.8/11); hyperactivity (before treatment 19.7/19, after treatment 16.4/16); inadequate eye contact (before treatment 8.3/8.6, after treatment 7.8/7); and inappropriate speech (before treatment 6.2/6, after treatment 4.3/4). The symptom checklist scores[11] were as follows: drowsiness (before treatment 1.6/1, after treatment 3.5/3) and decreased activity (before treatment 2.8/2, after treatment 3.7/3). We did not observe severe side effects.

Our results show that the efficacy of duloxetine as well as of agomelatine does not seem to exceed that of other antidepressants, which are in use for various target symptoms of patients suffering from autism.

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