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Tourette Syndrome: Efficient Treatment With Ziprasidone and Normalization of Body Weight in a Patient With Excessive Weight Gain Under Tiapride

Gilles de la Tourette syndrome (GTS) is a neuropsychiatric disorder characterized by involuntary motor and vocal tics. It manifests during childhood and is usually self-limiting, but symptoms may persist into adulthood. Treatment begins with educational and supportive interventions. For complicated cases, anti-tic drugs may be necessary. Although there have been only a limited number of double-blind, placebo-controlled trials, neuroleptics are considered the most effective remedies. Aside from limited effectiveness, side effects are major problems of anti-tic treatment.[1,2] We report on a GTS patient in whom tiapride treatment caused intolerable sedation and weight gain. A change of medication to ziprasidone achieved an almost complete remission of these side effects while providing a good tic control.

The woman, who presented first at the age of 20 years, had been suffering from GTS since 12 years of age. Motor tics comprised nodding, abrupt sideways head jerking, shoulder shrugging, and sudden bouts of hopping, sniffing, and throat clearing. There was no family history of tics. The patient had been treated successfully with tiapride in doses between 250 to 500 mg per day from the age of 13 years. Because of severe sedation and weight gain, tiapride was discontinued first at the age of 16 years. This resulted in a marked exacerbation of the tics, and tiapride was given again, eventually at a dose of 550 mg per day. A change of long-term treatment seemed inevitable, however, because severe side effects persisted in the form of massive weight gain (from 57 kg at the start of treatment at age of 14 years to 103 kg, with a height of 177 cm), hyperprolactinemia with galactorrhea, primary amenorrhea, and marked sedation.

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Initially, we attempted a change to clonidine,[1,2] gradually adjusting the dose up to 0.45 mg per day. With this add-on, it was possible to reduce tiapride to 300 mg per day with stable tic control. Reaching a daily tiapride dose of 250 mg, tics recurred. At this stage, we withdrew tiapride altogether and started the patient on 80 mg per day of the atypical neuroleptic ziprasidone, keeping 0.45 mg clonidine per day. With this regimen, tic control was re-established within 2 days. Because both ziprasidone and clonidine may cause QT interval prolongation,[3] we reduced the clonidine dose slowly, even though the QT interval had remained normal. With this reduction of clonidine, we had to increase ziprasidone dose to 120 mg per day to control the tics again. One year after transition from tiapride to ziprasidone, the patient had lost 24 kg in weight (79 kg; body length 177 cm), sedation that had been reported on tiapride was no longer present, and the prolactin level had been normalized. The patient currently studies town planning.

At present, no ideal pharmacologic therapy is available for tics.[1] Most of the existing drugs have potentially serious side effects. Two classes of drugs are used most widely to control GTS associated tics: α_2-adrenergic agonists and neuroleptics. The main side effect of α_2-adrenergic agonists clonidine and guafacine is sedation. Although α2-adrenergic agonists are generally not as potent as neuroleptics in the suppression of tics, their side effects tend to be less disabling. Especially for patients suffering from severe and otherwise refractory tics, neuroleptics may have to be considered. Among these, tiapride, haloperidol, sulpiride, and pimozide are the most frequently used typical neuroleptics. Long-term treatment though, is limited often due to side effects, such as sedation, weight gain, and dysphoria. In addition, many patients experience extrapyramidal symptoms and akathisia. Atypical neuroleptics are less likely to cause extrapyramidal symptoms. Weight gain and sedation have also been reported, however, especially for olanzapine and risperidone, two atypical neuroleptics with proven tic-suppressant efficacy.[1,2] Ziprasidone has been shown to diminish the severity of tics[4] and is also well tolerated. Above all, ziprasidone does not tend to cause significant weigh gain or sedation.[3,5]

In the case presented here, the efficacy of ziprasidone in controlling tics was comparable to that of tiapride. Moreover, after replacement of tiapride by ziprasidone, all previous side effects resolved, in particular the massive weight gain, hyperprolactinemia with galactorrhea, primary amenorrhea, and marked sedation. Ziprasidone should thus be considered as an effective and well-tolerated option for the treatment of GTS.

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