Risperidone and Lithium for Personality and Behavioral Changes With Wilson's Disease

To the Editor: Wilson's disease (hepatolenticular degeneration) is an autosomal recessive defect of cellular copper export. Patients most often present with liver disease (which can range from asymptomatic elevations in the serum aminotransferase or bilirubin concentrations to fulminant hepatic failure) or with neuropsychiatric disease.[1] About 20% incidence of psychiatric disturbances has been reported in Wilson's disease.[2] We report a case in which psychiatric symptoms improved with combined therapy with risperidone and lithium in a patient with Wilson's disease.

Case report. Mr A, a 43-year-old man, had a diagnosis of Wilson's disease for 36 years. Although he had been treated with D-penicillamine, his symptoms had become increasingly worse. He had been diagnosed with liver cirrhosis 18 years before and stomach varices 7 years before. For the last 2 years, he had been diagnosed as hepatic encephalopathy. Moreover, he had presented with personality changes (irritability and aggressiveness) and neurologic abnormalities (dysarthria, rigidity, and tremor).

In July 2005, he was admitted to our hospital because of exacerbation of hepatic encephalopathy. He was treated with diuretics, lactulose, and polymyxin B. These treatments were effective for symptoms of hepatic encephalopathy. However, his mental status was not improved. He was then referred to our department of psychiatry.

At psychiatric evaluation, his symptoms were irritability, aggressiveness, emotional lability, and lack of restraint. He had no previous psychiatric illness history, nor did his family. Magnetic resonance imaging of the brain revealed enlarged ventricles, cortical atrophy, and abnormal signals of basal ganglia. He was diagnosed with *DSM-IV* personality and behavioral changes due to Wilson's disease. He was treated with 4 mg/d of risperidone for 2 weeks. However, his symptoms were not improved. Lithium, 400 mg/d, was added to risperidone. After 1 week, his psychiatric symptoms were relieved. After his mental status had been stable for 6 weeks, he was transferred to a facility near his home.

There is a lack of consensus on the pharmacotherapy of personality and behavioral changes with Wilson's disease. Atypical antipsychotics may be useful in the treatment of its psychiatric symptoms because of their fewer extrapyramidal side effects.[3] There are a few case reports regarding the use of atypical antipsychotics (quetiapine,[3] clozapine[4]) for affective or psychotic symptoms with Wilson's disease. We decided to use atypical antipsychotics. Because Mr A's blood studies showed pancytopenia and hyperglycemia, we chose risperidone from among the atypical antipsychotics. However, we could not increase his dosage of risperidone because of concerns about his severe parkinsonian-like symptoms. Therefore, lithium was added to risperidone as a mood stabilizer.

In this case, combined therapy with risperidone and lithium was effective. When neurologic symptoms are severe, the addition of mood stabilizers to low-dose atypical antipsychotics seems to be effective. Lithium, alone of the mood stabilizers, is not metabolized in the liver and is excreted through the kidneys. Considering the risk of liver dysfunction with Wilson's disease, treatment with lithium seems to be more reasonable than that with other mood stabilizers such as valproic acid or carbamazepine. We think that combined therapy with low-dose risperidone and lithium may be useful for personality and behavioral changes with Wilson's disease.

REFERENCES

1. Brewer GJ, Yuzbasiyan-Gurkan V. Wilson disease. *Medicine (Baltimore)*. 1992;71(3):139–164.
2. Medalia A, Scheinberg IH. Psychopathology in patients with Wilson's disease. *Am J Psychiatry*. 1989;146(5):662–664.
3. Kulaksizoglu IB, Polat A. Quetiapine for mania with Wilson's disease. *Psychosomatics*. 2003;44(5):438–439.
4. Krim E, Barroso B. Psychiatric disorders treated with clozapine in a patient with Wilson's disease. *Presse Med*. 2001;30(15):738.

On Kato, MD
katoon@xa2.so-net.ne.jp
Naoko Ota, MD

Author affiliations: Department of Psychiatry International Medical Center of Japan Toyama Hospital (Dr Kato); and Department of Psychiatry, Tokyo Metropolitan Komagome Hospital (Dr Ota), Tokyo, Japan. ***Potential conflicts of interest:*** The authors report no financial affiliation or other relationship relevant to the subject matter of this letter. ***Funding/support:*** None reported.
doi:10.4088/PCC.08l00762