Adolescent onset Wilson’s disease misdiagnosed as psychosis

Sir,

Wilson’s disease (WD) is a rare, treatable condition that can present as a diagnostic dilemma in clinical settings. It was first described in 1912 by Kinnear Wilson as “progressive lenticular degeneration,” a familial, lethal neurological syndrome accompanied by chronic liver disease.[1] Clinically, it can present as liver disease, as progressive neurological entity, or as psychiatric illness. Majority of patients present between ages 5 and 35 years. Symptoms at any age are frequently nonspecific. Children may be entirely asymptomatic, with incidental findings of hepatic enlargement or abnormal serum aminotransferases. Neurological manifestations of WD mostly present in the third decade often later than the liver disease. Kayser–Fleischer (KF) rings are almost invariably present in patients with a neuropsychiatric presentation.[2]

Master M, 14-year-old Hindu boy, presented with 2 years illness of continuous course with chief complaints as marked disorganized behavior in the form of decreased interaction with family members, easy irritability, impaired self-care and daily routine along with disturbed sleep and appetite, and socio-occupational dysfunction. The boy stopped going to school and would be seen roaming around. At times, he would be found singing songs in public or behaving as if fighting with someone while alone. Suspiciousness in the form of fleeting persecutory delusions was reported. There had been no abdominal complaints. Following onset, he had been taken for consultation to many clinicians. The changing psychiatric diagnoses were made in the form of attention deficit hyperactivity disorder, bipolar affective disorder, psychosis not otherwise specified, and anxiety neurosis. Multiple psychotropics such as atomoxetine, mood stabilizers, antipsychotics, and benzodiazepines were used over time with minimal improvement. There had been no history of head injury, fits, or substance use. Family and development history were unremarkable.

On examination, the boy was conscious and oriented. His psychomotor activity was somewhat raised with ill-sustained eye contact. Reaction time to reply was increased and dysarthria was present. At times, during the interview, he would be seen gazing at some point or would be mumbling intermittently. There was no rigidity or tremor or any other gross finding on general physical examination. Mini-mental state examination and higher mental functions could not be properly checked owing to poor attention.

Liver function tests were gently raised which might have occurred due to prior psychotropics given or due to illness itself. Due to atypicality of presentation and history of poor response to psychotropics, a diagnosis of WD was suspected and slit-lamp examination was done, which came out positive for KF ring. Later, serum ceruloplasmin, copper level, and urine copper excretion were estimated in liaison with a neurologist and gastroenterologist, the findings of which were consistent with diagnosis of WD and oral penicillamine was started. From psychiatric viewpoint, a diagnosis of “organic schizophrenia like psychosis” (WD related) was considered and tablet risperidone was given in doses of 2 mg/day. Over next 1–2 weeks, he started gradually improving and was later discharged.

Psychiatric and behavioral abnormalities are often the frequent and initial manifestations of WD. The frequency estimates range from 30% to 100% of symptomatic patients.[3] In a review, psychiatric symptoms were found to occur before, along with, as well as after the diagnosis or treatment of WD. The average duration between onset of psychiatric symptoms and diagnosis of WD was 864.3 days, with major depression and psychosis as the most prevalent psychiatric manifestation seen.[4] In an another review of 42 WD patients taking treatment, 64.8% reported psychiatric symptoms at the time of initial presentation severe enough to warrant intervention.[5] Psychiatric manifestations of WD may lead to misdiagnosis when occurring without apparent hepatic or neurologic involvement. A better understanding would lead to early diagnosis and timely intervention thus preventing a fatal outcome.

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Conflicts of interest
There are no conflicts of interest.

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