Case Report

A Case Report of Misdiagnosis of Psychotic Symptoms Predominant Wilson’s Disease

Bhupendra Shah, Suren Limbu

Wilson’s disease is an autosomal recessive disease of abnormal copper metabolism. Psychosis is a rare manifestation of Wilson’s disease. Few cases of misdiagnosing Wilson’s disease as an etiology of psychosis were reported in the literature. We report a case of a 42-year-old patient, who was diagnosed with a schizoaffective disorder and treated with antipsychotics for 3 years with no significant improvement. On reevaluation, we the patient was diagnosed to have Wilson’s disease. The patient’s symptoms improved significantly with chelation therapy.

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shown in Figure 1. By ophthalmologist, the patient had hemoglobin –12 g/dl, total bilirubin –0.8 mg/dl, aspartate transferase –32 IU/L, alanine transferase –25 IU/L, and alkaline phosphatase –75 IU/L. Serum ceruloplasmin was 17 mg/dl (20–35 mg/dl) and 24‑h urinary copper was 48.26 µg/24 h (15–70). The diagnosis of Wilson’s disease was made on the basis of the decreased level of ceruloplasmin, the presence of KF ring, and 24‑h urinary copper level of >40 µg/24 h. We prescribed zinc sulfate 50 mg TDS and olanzapine 7.5 mg OD. The psychotic symptoms and generalized body shaking decrease by 4 months. The course of the disease of the patient is shown in Figure 2.

**DISCUSSION**

Our patient had a history of self-neglect, wandering aimlessly for 3 years and a tremor for 6–7 months. The patient had visited the hospital frequently but was misdiagnosed as a case of schizoaffective disorder and treated with antipsychotics alone and with no improvement. On reevaluation, we diagnose the patient as Wilson’s disease. The patient improved significantly with zinc sulfate and olanzapine.

Chakor and Santhosh reported that Wilson’s disease patient may present with emotional lability, disinhibition, and severe agitation.[4] Similarly, our patient had the feature of disinhibition such as talking excessively and wandering aimlessly. In a study by Srinivas et al., only 3 had schizophreniform illness among 15 patients with psychiatric predominant manifestation selected from 350 cohorts of Wilson’s disease.[5] As psychosis is a rare manifestation, we might miss the diagnosis of patient with wilson’s disease having only psychotic symptoms. Bhagat et al. from central Nepal reported a case of a 21-year-old patient who was initially diagnosed with a bipolar affective disorder and later found to be Wilson’s disease.[6]

Walshe and Yealland reported that the correct diagnosis of Wilson’s disease at the time of presentation was made only in one-third of the total cases and the mean delay in diagnosis of other cases was 13 months.[7] The delay in the diagnosis of Wilson disease may be due to the rarity of the disease, varied clinical presentation, lack of awareness among treating physician, not examining the patient properly, error in laboratory analysis of serum ceruloplasmin level, and 24-h urinary copper estimation. Our patient was misdiagnosed which may be due to lack of awareness among physician and not examining the patient properly.

Finding of KF rings in the ocular examination in our patient gave us a clue to diagnose Wilson’s disease. Ocular examination of any patients with personality changes and unexplained neuropsychiatric manifestation is a must to diagnose Wilson’s disease. KF rings can be appreciated in 85%–100% in a patient with neurological or psychiatry manifestation and 33%–86% with hepatic manifestation.[8]

Another diagnostic clue of Wilson’s disease in our patient is the presence of tremor. Any patient with personality changes with unexplained neuropsychiatric manifestation should alert the physician for suspecting Wilson’s disease. This highlights the importance of analyzing the tremor which may be misinterpreted as a side effect of antipsychotics.

**CONCLUSION**

Missing diagnosis of Wilson’s disease as an etiology of psychosis can occur in clinical practice that can be avoided by thoroughly examining KF rings in all patients with psychotic symptoms and tremor.
Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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REFERENCES