PSYCHIATRIC MANIFESTATIONS OF WILSON'S DISEASE – THE SIGNIFICANCE OF EARLY DIAGNOSIS

Tomasz Litwin[1], Agnieszka Antos[1], Anna Członkowska[1] & Łukasz Smoliński[1]

1 Second Department of Neurology, Institute of Psychiatry and Neurology, Warsaw, Poland

* * * * *

Dear Editor,

We read with interest the article by Zhang et al. (Zhang et al. 2023) on screening and management of psychiatric disorders in Wilson's disease (WD) and would like to share our views. WD is a rare metabolic disorder treatable with oral medications in which an early diagnosis and treatment are crucial for prognosis (Litwin et al. 2015, Aberg et al. 2023). The neuropsychiatric symptoms of WD are an important risk factor for unfavorable outcomes, including death (Aberg et al. 2023), which could be due to a delayed diagnosis observed frequently in patients with psychiatric symptoms of WD (Dunkerton et al. 2023, Litwin et al. 2015). Around a quarter of patients with WD have psychiatric symptoms at the beginning of the disease, but nearly all patients develop at least mild psychiatric symptoms later on (Litwin et al 2018). Unfortunately, unlike the typical neurological symptoms of WD, such as risus sardonicus, open-mouth smile or wing-beating tremor, the psychiatric symptoms of the disease are uncharacteristic (Demily et al. 2017; Litwin et al. 2018). They include 1) mood disorders, 2) personality and behavioral disorders, 3) cognitive deficits, usually mild, and 4) rare disorders, such as psychosis, catatonia, or anorexia (Litwin et al. 2018). Having such uncharacteristic psychiatric symptoms alone may delay diagnosis and treatment start by about 2.5 years (Litwin et al. 2018). Detecting WD in patients with psychiatric symptoms is challenging. In a study of nearly 300 patients, using serum concentrations of ceruloplasmin and copper alone seemed ineffective in screening for WD among patients admitted to a psychiatric ward (Demily et al. 2017). Therefore, when suspecting WD, particularly in young patients with new-onset psychiatric symptoms, we recommend carrying out brain magnetic resonance imaging (MRI), which may reveal typical bilateral T2-hyperintensities in basal ganglia, and assessing patients for pathognomonic Kayser-Fleisher rings on slit lamp examination (Litwin et al 2018). Furthermore, the co-occurrence of hepatic symptoms or movement disorders in patients with psychiatric symptoms should raise the suspicion of WD and prompt a thorough work-up by the Leipizg criteria, with 24-hour urinary copper excretion being indispensable (Litwin et al 2018). The treatment of psychiatric symptoms in patients with WD requires caution because many commonly used medications may worsen the disease (Litwin et al 2018). Neuroleptics may cause irreversible neurological deterioration (Litwin et al 2015), leading in some patients to immobilization, dystonic state, or death. Of course, neuroleptics may be necessary for patients with hallucinations or delusions, but the dose should be titrated slowly (Litwin et al 2018, Zhang et al 2023) as well as selected carefully according to recommendations (Litwin et al 2018). In conclusion, detecting WD in patients with psychiatric symptoms and managing these symptoms after diagnosis remains challenging (Litwin et al 2018), but a multidisciplinary approach may help avoid diagnostic delay and treatment complications.

Funding: This research received no external funding.
Data Availability Statement: Not applicable.
Conflicts of Interest: The authors declare no conflict of interest.

References:

Aberg F, Shang Y, Strandberg R, Wester A, Widman L, Hagstrom H: Four-fold increased mortality rate in patients with Wilson's disease: a population-based cohort study of 151 patients. United Eur Gastroent J 2023; 11: 852-860.

Demily C, Parant F, Cheillan D, et al.: Screening of Wilson's disease in a psychiatric population: difficulties and pitfalls: A preliminary study. Ann Gen Psychiatry 2017: 16; 19.doi: 10.1186/s12991-017-0142-6

Dunkerton S, Clarke AJ, Thompson EO, et al.: Wilson disease: a case report of psychosis preceding parkinsonism. Am J Case Rep 2023; 24:doi: 10.12659/AJCR.940561

Litwin T, Dzieżyc K, Karliński M, Chabik G, Czepiel W, Czlonkowska A: Early neurological worsening in patients with Wilson's Diseases. J Neurol Sci 2015;355:162-167.

Litwin T, Dusek P, Szafranski T, Dziezyc K, Czlonkowska A, Rybakowski JK: Psychiatric manifestation in Wilson's disease: possibilities and difficulties for treatment. Ther Adv Psychopharmacol 2018; 8: 199-211.

Zhang J, Wu L, Fang H, Tang J: Screening and management of psychiatric disorders in patients with Wilson's disease. Psychiatr Danub 2023; 35: 477-488.

Correspondence:
Tomasz Litwin MD, PhD
Institute of Psychiatry and Neurology
Second Department of Neurology
Sobieskiego 9, 02-957 Warsaw, Poland
tomlit@medprakt.pl / (48) 22 4582537