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Neurological Disease Masquerading as Psychogenic Movement Disorders

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ABSTRACT

Psychogenic movement disorders create dilemma to neurologist as well as psychiatrist in diagnosis and management. Here we highlight two cases of movement disorders of what appeared to be psychogenic movement disorder which later turned out to be Wilson's disease (WD). Therefore, an early and accurate diagnosis, coupled with prompt and appropriate treatment, holds immense value for the overall prognosis of the patient.

Key words: Wilson's disease, Psychogenic movement disorder, Dissociative motor disorders

INTRODUCTION

Abnormal involuntary movements are frequently associated with psychiatric disorders. Conversely, primary movement disorders may present with psychiatric symptoms, as seen in various neurological conditions such as WD, Huntington's disease (Lees, 2002). Thus, accurate identification of abnormal movements according to accepted phenomenology is crucial for diagnosing movement disorders (LaFaver et al., 2020). Here, in our presentation, we've tried to delineate how psychiatric manifestations blur the diagnosis of pure neurological conditions (WD).

CASE 1

The patient AA was an 18-year-old married male, 8th Standard, belonging to a MSES Hindu joint rural family. There was no significant past, personal, or family history. His presenting complaints began six months back with some issues related with his marriage. Since then, he experienced unresponsive spells lasting from half an hour to one hour, increasing in frequency from once or twice a week to multiple times a day. Over time, he walked differently, tilting backward when standing up. He continued working in the fields, occasionally experiencing falls attributed to uneven ground.

One month ago, the patient's father noticed involuntary shaking in his right hand, which the patient claimed was beyond his control. The tremor was present only in the right upper limb, with shoulder joint abduction, wrist flexion, and forearm movement. The frequency of the tremor increased and amplitude increased in stressful situations. During these episodes, the patient would smile, but it appeared empty, purposeless, with teeth clenching. Speech difficulties accompanied these movements, lasting one to two hours and not occurring during sleep. He could no longer work in the fields. A provisional diagnosis of dissociative motor

disorder was made. Treatment with Tab Fluoxetine 20mg OD and Tab Lorazepam 2mg BD initially showed improvement. However, the patient experienced a fall in the bathroom, difficulty getting up. Neurological examination revealed KF ring (Figure1) increased muscle tone, dystonia, a vacuous smile, and wing-beating tremor. (Figure 2, video). The T2 weighted MRI brain revealed hyperintensity in lentiform nucleus, globus pallidus, ventrolateral thalamus (Figure 3). Blood investigations revealed decreased ceruloplasmin and urine examination showed increased 24 hour copper levels. He was treated with zinc and shows improvement on regular follow ups. Around 6 months later, his younger brother also presented with psychiatric symptoms suggestive of psychosis. He was evaluated for WD which came out to be positive. He was started on zinc therapy on which he showed improvement due to early diagnosis and intervention.

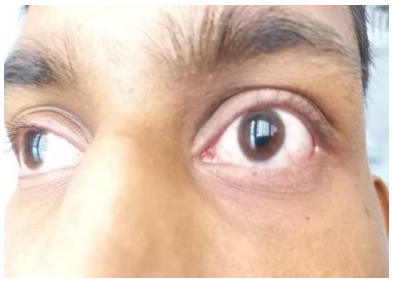

Fig 1: KF ring

Fig 2: Bird wing tremor

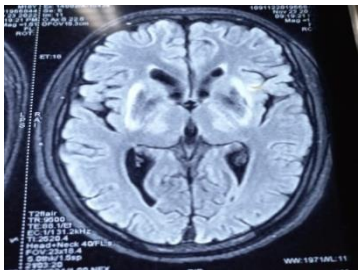

Fig 3: MRI Head Plain

Fig1,2 and 3 give the description of case 1 which show tremor in the right upper limb, with shoulder joint abduction, wrist flexion, and forearm movement. The T2 Weighted MRI brain revealed hyperintensity in lentiform nucleus, globus pallidus, ventrolateral thalamus and KF ring were present on both eyes after slit lamp examination.

CASE 2:

A 32-year-old married male presented with a perplexing illness spanning 22 years, marked by an insidious onset, continuous and fluctuating course, and an absence of identifiable precipitating factors. His chief complaint was an inability to walk with a normal gait on hard surfaces which started at the age of 10 when he initially reported abdominal pain, causing him to miss school that day. Curiously, once the pain abated, he adopted a hopping gait, expressing discomfort and imbalance when attempting to walk without carrying weights. Intriguingly, he could navigate muddy ground or traverse with minimal support, exhibiting no difficulty in climbing stairs. Over the subsequent two decades, he persisted in this unique hopping pattern, significantly impacting his socio-occupational life by failing as a consistent bread-winner. He had been admitted and underwent all the investigations. Neurological examination, CSF analysis, MRI brain, and NMDA analysis yielded no abnormalities (Figure 4). A diagnosis of Dissociative Disorder was made with secondary gain manifested in a lack of responsibility within the context of family life. He and his family members were given psychoeducated, behavioral therapy with occupational therapists. In the span of a month, he started showing improvements and was able to walk normally. (Figure 5). He has been on follow ups and has been maintaining well since then.

Fig 4

Fig 5

Fig 4 and 5 of case 2 describe the patient who adopted a hopping gait, expressing discomfort and imbalance when attempting to walk without carrying weights. Subsequently he developed normal stance gain after intervention

DISCUSSION

Comparing these cases, we observe the diverse etiologies underlying seemingly similar presentations. The first case highlights the challenge of diagnosing Wilson's disease, which can initially present with psychiatric symptoms before neurological manifestations become apparent. The second case appeared to be of neurological cause but turned out to be psychological. The symptoms of WD are diverse, unspecific, affecting multiple systems, making early diagnosis challenging as 29.31% of cases present psychiatric issues initially. (Litwin et al., 2018).

Several studies (Prashanth et al., 2004) reveal that over two-thirds of cases experienced diagnostic errors, leading to delays in correct diagnosis averaging two years. Misdiagnoses included schizophrenia, polyarthritis, rheumatic chorea, and others. In another recent study (Yu et al., 2022), 72.1% of 179 patients with WD were misdiagnosed, mimicking various diseases such as hepatitis, cirrhosis, encephalitis, and neuropathy.

In conclusion, these cases illustrate the intricate interplay between psychiatric and neurological conditions, emphasizing the importance of a comprehensive and collaborative approach in both diagnosis and management. They also highlight the necessity of considering a broad differential diagnosis and conducting thorough investigations to uncover underlying etiologies, ensuring timely and appropriate interventions for optimal patient outcomes.

Declaration by Authors

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