Obsessive-Compulsive Phenomena as Postictal Behavioral Change:

A Rare Case Report

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Apt recognition of postictal behavioral changes (PBCs) could help in understanding the pathophysiology and treatment of both epilepsy and psychiatric morbidity.[1,2] PBCs commonly include aggression, psychosis, confusion, and mood changes.[2] Obsessive-compulsive phenomenon (OCP) is frequently reported with temporal lobe epilepsy.[3] Interestingly, these obsessive-compulsive manifestations are reported in the interictal phase only. OCP as PBCs is reportedly scarce. We present a case of obsessive-compulsive PBCs in a patient with focal epilepsy.

Case Report

A 23-year-old unmarried man, well-adjusted premorbidly, presented with complaints of self-muttering, self-smiling, repetitive hand and face washing, low mood, anxiety, and restlessness for the last 4 years. The patient is a known case of focal epilepsy since the age of 3 years. These episodes would occur anytime during the day with variable frequency (1 per day to 1 per month). The patient's seizure symptoms were described as follows: feeling of heaviness of the abdomen with a climbing ball-like sensation followed by upward rolling of the eyeballs, tonic-clonic movements of the hands and feet, frothing from the mouth, tongue bite, and urinary incontinence lasting for 2 to 3 minutes followed by a postictal phase for 2–4 days. In the postictal phase, the patient would be drowsy and not recognize family members for the initial few hours and would mutter and smile to himself. He would also repeatedly wash his hands, face, and feet and clean his surroundings with a broom more than 10–20 times during the day for 5–10 minutes each time. The semiology was suggestive of focal seizure evolving to a secondary generalized seizure. As per treatment records, the patient received valproate 20 mg/kg with resultant poor seizure control and medication compliance.

His physical examination was unremarkable. In thought possession, doubts of contamination and compulsive cleaning/washing were found. Ideas of self-harm were also reported. The Yale-Brown Obsessive-Compulsive Scale[4] scores assessed at 24 hours and the fifth day postictal were 31 and zero, respectively.

Electroencephalography at the 24-hour postictal phase showed bilateral temporal intermittent rhythmic delta activity (TIRDA), with higher amplitude on the right side. Neuroimaging was unremarkable. The patient was started on carbamazepine (up to 15 mg/kg) and was seizure free until 1 month of follow-up.

Discussion

PBCs have a negative impact on the quality of life in epilepsy patients.[1] This index case is among the first to explicitly report obsessive-compulsive PBCs, though anxiety disorders per se are a frequent (45%) occurrence in the postictal phase.[5] These anxiety disorder PBCs are reported to be associated with a history of either depression or anxiety, unlike in our case.[1] Most of these anxiety symptoms would last at least 24 hours in contrast to our case in which the OCP would last at least 48 to 96 hours.[1] Obsessive-compulsive PBCs could be due to rapid release and resolution of latent obsessionality, though our patient had well-adjusted premorbid status on clinical evaluation and emanated the need for more sensitive neuropsychological assessment.

Obsessive-compulsive symptoms of washing/cleaning were more common in our case compared to the symmetry/exactness phenotype observed in interictal obsessive-compulsive disorder.[6] Interestingly, risk factors of postictal psychosis like long epilepsy duration and secondary generalized are also prevalent in our case.[1] As per Kaplan,[3] temporal lobe epilepsy foci associated with obsessive-compulsive disorder may be either left sided or right sided. Similarly, bilateral TIRDA was reported in our case. Neurobiological models like striate-thalamic-orbitofrontal connectome and kindling have been suggested as explanations for the interictal OCP. However, these neurobiological models have not been studied in the context of obsessive-compulsive PBCs.

Conclusion

Our case is a rare report of OCP as a PBC. Further research into the association of obsessive-compulsive PBC patterns with seizure discharges could help to elucidate behavioral changes not only in patients with epilepsy but also in those with other psychiatric disorders.

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