ICTAL NOSE WIPING IN FRONTAL-ONSET ABSENCE EPILEPSY; A CASE REPORT

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INTRODUCTION

Childhood absence epilepsy is a pediatric epilepsy syndrome characterized by abruptly onset and ending episodes of paroxysmal loss of consciousness. It presents with multiple daily absence seizures associated with 2.5 - 3.5 Hz generalized spike-wave, between 2 and 12 years of age (peak 5-6 years).[1,2] Oral automatism (swallowing, chewing, lip smacking and licking) and manual automatism (moving, squeezing, moving legs) are frequently seen in childhood absence seizures.[2] We presented an extremely rare case of ictal nasal wiping in absence epilepsy.

CASE REPORT

A 10-year-old boy was presented with sudden onset staring, unresponsiveness, behavioral arrest followed by ictal nose wiping lasting for 10-15 seconds. Seizure frequency was 3-4 times per day for the last 15 days. He was born at term as a result of an uneventful pregnancy from non-consanguineous parents. The neuromotor development was appropriate to his age. No abnormality was detected in his physical examination and anthropometric measurements.

During the 3-minutes hyperventilation test; sudden onset staring, unresponsiveness and nose wiping automatism were observed (**QR-Code 1**). The video-electroencephalography (EEG) of the patient showed generalized 2.5 Hz spike-and-wave activity with bilateral frontal onset lasting for 6-15 seconds at 4 times during hyperventilation; simultaneously, the patient used the left hand to wipe his nose for 5-10 seconds during the seizures in the ictal period and also were seen sudden onset staring and unresponsiveness (**QR-Code 2**). Cranial magnetic resonance imaging and early epileptic encephalopathy gene panel were found to be normal. He was diagnosed with frontal-onset absence epilepsy and was treated successfully with ethosuximide. He is seizure free for a year.

QR-Code 1
https://www.youtube.com/watch?v=xgDP_9FJoBk

QR-Code 2
https://www.youtube.com/watch?v=XW-Fe3Ve4n0

DISCUSSION

Nose wiping is a peri-ictal automatism which is well-known as a lateralizing and localizing semiology in focal seizures, especially temporal lobe epilepsy (approximately 50 to 60% of patients) and less frequently in extratemporal epilepsy (only 10 to 33%).[3,4] However, it is an extremely rare entity in generalized onset seizures. Catenoix et al. found that nose wiping is to be associated with ictal low voltage fast activity within the amygdala and thought that nose wiping is reflected ictal olfactory hallucinations or increases nasal secretions in focal seizures.[5]

Our case showed that ictal nose wiping may also be associated with absence seizures in contrast to other recent reports. The pathophysiology of ictal nose wiping in generalized epilepsy is still unknown, but we hypothesized that the ictal nose wiping in absence epilepsy could be a result of ictal activation of limbic structure.

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