



Ictal Fear and Aggression as the Presenting Symptom of Epileptic Seizures +

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Aggression is an uncommon phenomenon which may be the only ictal semiologic feature of frontal or temporal epileptic foci. This feature may be very frightening for the family and if the patient presents with this isolated symptom, the diagnosis may be challenging. A patient with clusters of nocturnal vocalization and aggression who had never experienced a generalized seizure priorly is presented. We decided to present this case because of its atypical presentation. The patient is still being followed at our out-patient clinic and has been seizure free for eight months on 300 mg lamotrigine therapy.

Key Words: Ictal aggression, Ictal fear, Epilepsy

İktal Korku ve Öfke ile Niteli Epileptik Nöbetler

Agresyon ender görülen bir ıktal fenomen olup, frontal ve/veya temporal epileptik odak kaynaklı olabilir. Agresyon, hem hasta hem de hasta yakınları için son derece ürkütücü olabilir ve özellikle izole bir semptom şeklinde ise tanı zor olabilir. Bu vaka sunumunda, nokturnal kümeler halinde şiddetli çılgılık, ardından agresyonun görüldüğü ve daha önce hiç jeneralize epileptik nöbet geçirmemiş olan hasta sunulmaktadır. Hasta halen takibimizde olup günlük 300 mg Lamotrijin tedavisiyle sekiz aydır nöbetsizdir.

Anahtar Kelimeler: İktal agresyon, ıktal korku, Epilepsi

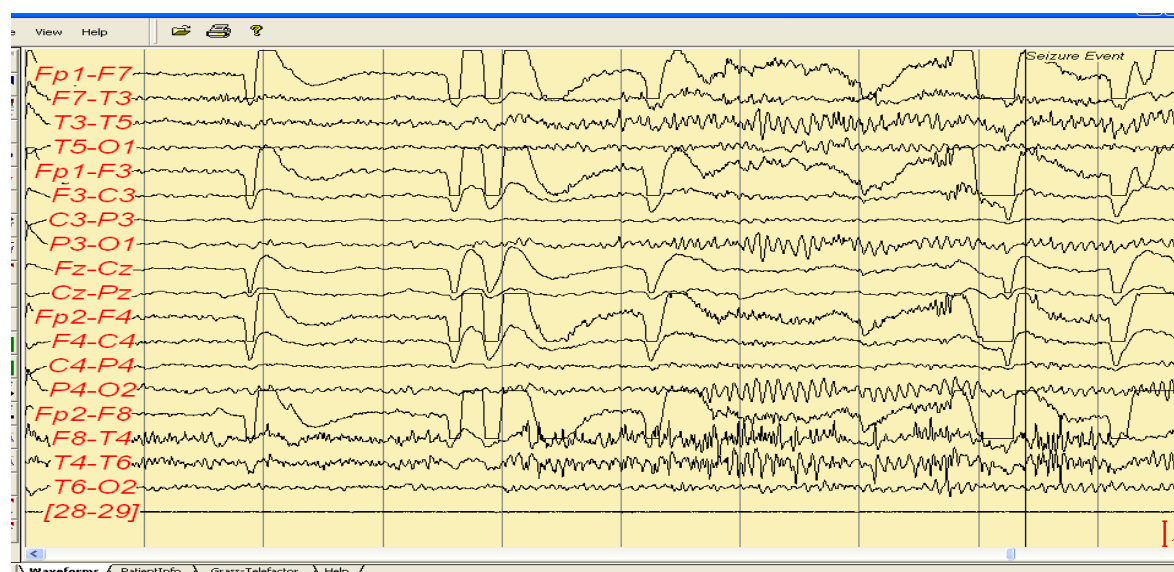
+Bu yayın 2007 Ulusal Epilepsi Kongresinde poster bildirisi olarak yayınlanmıştır.

Seizures arising from the frontal and temporal foci presenting with ictal stereotyped behaviours may mimic psychiatric disorders and thus may complicate the diagnosis of epilepsy. However, long-term video-EEG monitoring may provide further information about the seizure type and the potential seizure foci.

CASE REPORT

A 42-year-old, right-handed woman was referred to our out-patient clinic with paroxysmal episodes of anger and loud screaming. The frequency of the episodes were 8 to 10 times a month and had nocturnal tendency. Her caretakers and even neighbors were very afraid of these episodes and had difficulty with falling asleep because of loud screamings at night. She had never experienced a secondary generalized seizure. As the attacks were very atypical, psychiatric disorders had been considered priorly and she was then referred to our clinic for differential diagnosis.

Past- medical history, neurological examination and MRI (1,5 Tesla including 2 mm slices) were normal. Video-EEG monitoring was performed. Interictal recordings were unremarkable, background activity was normal; no interictal epileptiform discharges were recorded. Three seizures were recorded in 4 days, two of them were at night, at stage I sleep and one of them was at daytime. Her family reported that these spells were identical with the episodes that they have witnessed at home. Anger and fear were the striking features of the attacks. The seizures would start with a 'very' loud screaming lasting for 10-15 seconds with unpurposeful, stereotyped movements of the extremities like kicking, grabbing and throwing nearby objects or hugging a nearby individual. A very frightened and angry look on her face and semidystonic posture of the right distal upper extremity was noticed on each attack. She told us that she sometimes felt an inner 'tension' at the beginning of the attacks. EEG recordings of the spells reflected, bursts of right frontotemporal fast activity with muscle and movement artefacts (figure).

Figure: Bursts of right frontotemporal fast activity with muscle and movement artefacts

Lamotrigine was administered and the dosage was steadily increased to 300 mg/day. With this treatment, she did not experience any seizures during the follow-up period of 8 months.

DISCUSSION

Although ictal aggression and violence have been carefully investigated previously because of the use of epileptic automatisms as a defence after violent crimes, only very few articles provide satisfactory and detailed definitions.¹⁻³ The current concept of the neuroanatomy underlying the anger and aggression involves amygdala, hypothalamus, anterior cingulate gyrus and the ventral premotor cortex.⁴ Aggressive behaviour can be taken as an epileptic semiology only under specific circumstances; the seizure should start and end suddenly without provocation and be very brief (1-3 minutes), skilled, detailed or purposeful acts are unusual, staring, oral and/or motor automatisms or ictal fear usually precede the aggressive behaviour, throwing or grabbing nearby objects and embracing a nearby individual are the mostly encountered stereotypical behavioral patterns and resistive violence may last postictally if the patient is restrained.²

According to the ILAE taskforce on seizure Classification and Terminology, our patient's seizure type can be classified as 'hyperkinetic seizure' which defines complex motor episodes with vocalization,

screaming, fearful and repetitive movements of the trunk and limbs.^{5,6}

A very striking feature of our patient's spells; 'ictal vocalization' is defined as; 'audible sounds without speech quality not accompanying apnea, generalized tonic-clonic or clonic seizures, obviously an ictal phenomenon, although an association between vocalization and lateralization was not found, patients with right-sided foci had ictal vocalizations significantly more often than patients with right-sided foci.⁶ Another ictal phenomenon; ictal fear, which is very obvious in our patient, is attributed to the involvement of amygdala and/or cingulate gyrus.²

We did not perform functional neuroimaging techniques or invasive recordings since a surgical approach is not considered due to satisfactory control with medical therapy. This makes determining an epileptic focus impossible but, as she had clusters of brief seizures with an arousal from stage I sleep, auras of 'tension' and vocalization, we can speculate a focus originating from or spreading to supplementary area.⁷

In conclusion, as in our patient; ictal aggression and vocalization can be the only ictal manifestations in epilepsy. Therefore, stereotyped aggression and vocalization should lead the clinicians to consider a possible seizure activity before taking these symptoms as psychiatric symptoms. Such patients must be evaluated with high-resolution MRI to exclude a possible space occupying lesion.

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