Epilepsy, Psychogenic Seizure, Trauma in the Developmental Process

Epilepsinin Gelişimsel Süreçte Travma ve Psikojenik Nöbet ile İlişkisi

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ABSTRACT
An epileptic seizure, can cause trauma for its sudden emergence, leading to functional impairment, accidents and injuries, and fear of death. The seizure can be traumatizing itself, besides, an head trauma that may occur during the seizure can also cause epilepsy. As the severity and duration of epilepsy increases, disturbances in development and traumatic effects occur. Conversion (psychogenic) seizures may be added over the years in epileptic patients. The comorbidity of trauma-related dissociative disorder and psychogenic seizures is observed in approximately half of the cases. Dissociative disorders are known to occur in children with chronic diseases due to the traumatic effect of the disease. Conversion disorder and psychogenic seizures are frequently seen in dissociative disorders. Posttraumatic stress disorder, dissociative disorders, and psychogenic seizures are often comorbid diagnoses in epilepsy. For this reason, traumatic effect and associated dissociative disorder dimension should be kept in mind in the psychiatric approach when handling with cases of epilepsy. (Archives of Neuropsychiatry 2013; 50: 291-294)

Key words: Epilepsy, trauma, posttraumatic stress disorder, dissociative disorder, development

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Introduction

Epilepsy can be traumatic because it occurs suddenly, can lead to functional impairment with recurrent seizures and can cause to accidents, injuries and experience of fear of death. There are limited number of studies related with posttraumatic stress disorder (PTSD) related with traumatic experience and dissociative disorder in epilepsy.

It leads to dissociative disorder by causing to trauma with chronic disease, frequent hospitalizations and painful procedures (1). While epileptic seizure itself can be traumatic, epilepsy may also occur following physical head trauma. 10% of head traumas experienced in the early childhood cause to epilepsy. Recurrent minor cerebral trauma, mild closed head trauma in the early childhood increase the risk of PTSD and dissociative disorder (2,3).

In dissociative disorder which occurs in relation with trauma, conversion disorder and converisive fainting are also observed frequently. Epidemiological and clinical studies related with epilepsy with recurrent seizures have demonstrated that the risk of behavioral problems is high.

In patients with epilepsy, a co-diagnosis of psychiatric disease has been reported with a rate of 21%-60% (4). In studies conducted with children and adolescents, the most commonly reported diagnosis is depression; it has been reported with a rate...
of 23%-36%. While no relation was found between seizure type and depression in some studies (5,6), in some other studies, it has been reported that depressive symptoms are observed frequently especially in temporal lobe epilepsy which is accompanied with complex partial seizures and even in juvenile myoclonic epilepsy with genetic origin (7,8,9,10).

Caplan et al. investigated the psychopathology in complex partial and generalized seizure types using Childhood Behavior Assessment Scale and found psychopathology at clinical level in 63% of the patients with partial seizures and in 55% of the patients with generalized seizures. Disruptive behavior was found with a rate of 25% and anxiety and emotional disorder was found with a rate of 13% (11). Thome-Souza et al. examined 55 subjects with an IQ below 70 using structured clinical interview and found psychiatric disorder in 70.5%. The most common diagnosis was depression (36.4%) which was followed by attention deficit and hyperactivity disorder (ADHD) (23.1%) (12).

As the time of epilepsy increases, the risk of depression increases (13,12) and depression is observed with a higher rate in adolescents compared to children (7,12). Roeder et al. found that only 1/3 of the patients who were referred to psychiatry clinic especially because of depressive symptoms received psychiatric treatment (14). Similarly, it was found that 30% of epilepsy patients presented to psychiatry clinics and generally 48% of the patients were diagnosed with a psychiatric disorder in a study conducted in our clinic (15). Ertekin et al. found a psychiatric diagnosis in 49% of 29 adult patients with temporal epilepsy including mainly obsessive compulsive disorder (16).

Anxiety disorders are the most important psychiatric disorder cluster which decreases the quality of life (17). Concern about seizure in a social setting may be manifested as social phobia and concern about seizure when one is separated from home or the mother may be manifested as separation anxiety (18).

Although Dunn et al. observed a marked decrease in the symptom groups excluding oppositional defiance disorder with age in the assessment they made according to age using the child and adolescent symptom list (CSI/ASI), PTSD increased from 25.4% in the childhood to 44.6% in the adulthood. PTSD was generally the most common symptom group. This was followed by panic attack with a rate of 36.5%, specific phobia with a rate of 32.4%, somatization disorder and inattentive subtype of ADHD with a rate of 21.6%. Again the same investigators performed clinical interview with parents because of a high rate of PTSD and the possible diagnosis of PTSD was found with a frequency of 38%. Rosenberg et al. found the same frequency of PTSD as in adults with resistant epilepsy (19,20).

In a study conducted with adults in United Arab Emirates, 51% of 71 epilepsy patients met the diagnostic criteria of complete PTSD and 30% met the diagnosis of partial PTSD. 19% were not diagnosed with PTSD. A high relation was found between post-seizure development of PTSD and depression. It was observed that patients with PTSD had difficulty in recognizing their senses and emotions (alexithymia) (21).

In the literature, episodes were completely eliminated with antiepileptic treatment in a female patient who was followed up with an erroneous diagnosis of PTSD for two years and in whom the episodes were found to be epilepsy by video-EEG after a suspicious generalized seizure. In temporal lobe epilepsy, real-life experience memory may occur as an ictal phenomenon. If a memory is traumatic its occurrence may mimic the picture of PTSD (22).

Seizures are traumatic events because they carry the risk of physical injury. Therefore, the first diagnostic criterion for PTSD is met. Anxiety of the parents may also be effective as a model. The child may experience a fear of having a seizure in expectation anxiety. Problems experienced in the relation between the parents and child and in the family, attitude of the parents, neglect and rejection may lead to emotional problems (23). In a study conducted with the parents of epileptic children, a diagnosis of PTSD and depression was made with a rate of 31.5% in the parents (24).

Especially in patients who have generalized seizures, injury or accidents with fall are observed frequently. Because of this risk excessive protective and defensive attitude of families may be increased. Depression and anxiety is observed with a high rate in parents of epileptic children (25).

Mental retardation shows association with epilepsy with a high rate. In this case, the risk of behavioral problems and exposure to abuse is higher. Eye movement desensitization and reprocessing (EMDR) technique used in treatment of trauma in adults or adolescent patients with mild mental retardation has been found to be beneficial (26).

Epilepsy and Psychogenic Seizure (PS)

The differential diagnosis of epileptic seizure and psychogenic seizure is the common area of interest of neurology and psychiatry. Psychogenic seizures are observed with a considerably higher rate in neurology clinics compared to psychiatry. As the severity and time of epilepsy increases, its disrupting and traumatic effect on development of the child emerges and conversion (psychogenic) seizures related with trauma are added to the picture. Developmentally seizure-like stereotypical movements, hypnic jerks, parasomnias and pictures like Sandifer syndrome in the early childhood before the age of 5 years can later emerge as psychogenic seizures especially in adolescence (27,28,29).

In a follow-up study conducted with adolescents with conversion disorder in Turkey, 40 adolescent patients were evaluated 4 years later and clinical depression and anxiety were found in 35% of these patients, although psychogenic seizures were eliminated in 85% (30).

A co-diagnosis of dissociative disorder related with trauma is observed in approximately half of the patients with psychogenic seizure. In two separate patient groups with epileptic and psychogenic fainting, a history of sexual trauma was found with the same rate (38%). While physical abuse was found with a rate of 90% in patients with psychogenic fainting, it was found with a rate of 40% in epileptic patients. PTSD was found in 40% of the patients with psychogenic fainting (31).

Organic etiology may be present before psychogenic seizures. A history of head trauma is present in 20%-44% of the patients with psychogenic seizure. Chronic pain and fibromyalgia may also be triggering factors (32,33,34,35). Antiepileptic drug toxicity may increase the frequency of psychogenic seizure. In sensitive
Individuals, dissociative episode may occur following anesthesia (36). It has been reported that 5%-40% of the patients with psychogenic seizure have been diagnosed with epilepsy or used antiepileptic drugs before (37,38,39). There is a risk of usage of many antiepileptics as a result of such erroneous diagnosis (40).

Although a history of physical and sexual trauma is present in 23%-77% of the patients with psychogenic seizure, it has been reported that the patients may think that this is a subject which cannot be talked about, experience a dilemma in disclosure, seizures may occur as ‘flash back’ experience and the conscious may close itself with an automatic reaction against disturbing memories (41). It was thought that psychogenic seizures in which severe abuse and high rates of PTSD were observed might be a clinical subtype of PTSD (42). A history of sexual abuse was found in 32% of the patients with psychogenic seizures aged between 9 and 18 years, a history of physical abuse was found with a rate of 6% and a history of severe familial stress factors were found with a rate of 44% (43).

In a recent study conducted with American veterans, psychogenic seizure was observed in 37 of 50 individuals. It was found that a diagnosis of PTSD was made before psychogenic seizure in 58% of these and PTSD was the only psychiatric diagnosis related with psychogenic seizures. Depression and alcohol abuse were found with a high rate also in the group without psychogenic seizure (44). Again in a recent study performed in Brazil, 102 patients who presented with psychogenic seizure were evaluated; the mean age of these patients was 27.9 years at the baseline, 7.9 years passed until the diagnosis was made. 87% of these patients lived with their families, 57% were single and only 40% were working regularly (39). Psychosocial support appears to be necessary in patients with psychogenic seizure.

In 38 patients who were being followed up in the psychiatry clinic of our university because of conversion disorder, a psychiatric diagnosis was made with a rate of 89.5% and a diagnosis of dissociative disorder was made with a rate of 47.4%. Neglect was found in 57.9%, emotional abuse was found in 34.2%, physical abuse was found in 44.7% and sexual abuse was found in 26.3%. If psychopathology is severe in conversion disorder, co-morbid dissociative disorder should also be considered (45).

Seizures and Dissociative Disorder

Generally, it is known that dissociative disorder occurs with traumatic effect related with the disease in children with chronic diseases. Dissociation occurs with disruption in integration of conscious, perception, memory and personality as a defense mechanism against traumatic and stressful conditions. It means that there is change or loss in the integration of self-experience with persistence in the process. Categorically, psychoform dissociation is clinically observed as amnesia, depersonalization, derealization, identity confusion, multiple personality disorder, while somatoform dissociation characterized with disruption in physical functions occurs as conversion disorder, somatization symptoms and pain disorder (46,47,48).

Among international psychiatric diagnostic systems, the World Health organization diagnostic system ICD-10 places somatization and conversion disorder under the title of dissociative disorders (46,49). Here, acute stress reaction, PTSD, somatization disorder and reactive dependence disorder are included in the other psychopathologies related with dissociative symptoms. The American DSM-IV diagnostic system defines somatic symptoms under the title of somatoform disorders and defines conversion disorder as well as somatization, conversion and pain disorder (50,51,52).

In painful and traumatic conditions which are difficult to bear, a change is observed in normal integrated self-consciousness. It has been reported that dissociative reaction is observed frequently between emotions, thoughts and memory in patients with psychogenic seizure and dissociative stress is observed especially while reporting sexual traumas (46,53,54,55).

Dissociative disorder (91%), somatoform disorder (89%), affective disorder (64%), personality disorder (62%), PTSD (49%) and other anxiety disorders (47%) have been found in adult patients with psychogenic seizure (56).

In epilepsy which is a chronic disease, co-diagnoses of PTSD, dissociative disorder and psychogenic seizure related with trauma are observed frequently. Therefore, the dimension of psychological disorder related with traumatic effect should be included in the psychiatric approach when managing epilepsy patients.

References