

■ Case Report

Depression in seizure disorder

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Abstract

Depression, a psychiatric disorder is common and can present with various forms in seizures. Here is a seizure case with depression, as manifestation and as co-morbidity, presented to highlight the prevalence and management issues.

A 35-year married female presented to a health-camp with unresponsive spells and depressive symptoms. For 5 years, she had altered consciousness spells associated with deviation of mouth and turning head to left and stiffening of right limbs, followed by GTCS every 15-90 days. The frequency increased in last 6 months.

Her supportive mother-in-law died 12 months back and, she started worrying about her illness and family. Her sleep and appetite decreased. She frequently cried alone, more in 2-3 days after seizure spells, in last 7 months. She repeatedly expressed guilt and death wish, and once attempted hanging. Referral was made from the camp for hospital admission. After EEG report of 'left temporal seizure', mood stabilizing anti-epileptic and seizure friendly antidepressant were started with diagnosis of 'Seizure and severe depression'.

Keywords: anti-depressant, anti-epileptics, depression, epilepsy/seizure

Introduction

Depression and seizure appear to have bidirectional relationship.¹ Depression occurs both as symptom and co-morbid disorder² more among seizure patients than general population.³ Seizure is also reported more among depression cases.⁴ Depression is usually not recognized and treated, more so among seizure cases.⁵ Untreated depression leads to worsening of seizure, noncompliance, distress, disability, loss of quality of life and suicide.⁶ Many seizure cases come to clinical attention late when complicated.⁷ Depression in seizure needs both control of seizure with mood stabilizing anti-epileptic and treatment of depression with seizure-friendly anti-depressant.¹

Here is a seizure case which developed depressive illness in the pretext of a stressful life event. Discussion on the co-occurrence and management ensues.

Case report

A 35-year-married illiterate Hindu house-wife was brought from a village of Dhankutta by her husband and sister to a local specialist health camp including psychiatric service⁸, with complaints of unresponsive

spells for 5 years and depressive symptoms for 7-9 months.

She was found unconsciousness, lying on kitchen floor first time 5 years back. Subsequently, she had the spells characterized by altered consciousness associated with deviation of mouth and turning head to left and stiffening of limbs on right side, followed by GTCS once in every fortnight to 2-3 months. GTCS duration was 1-3 minutes although the preceding altered consciousness and motor symptoms were of varying durations. The spells had occurred anytime anywhere, including while alone and during sleep. At times, it was associated with injuries, tongue bite and urinary incontinence. It would be followed by throbbing headache for 1-4 hours and weakness of 6 hours-3 days. It occurred many a time near 'aunsi', the last day of dark half of lunar month, they thought 'jungali lageko', a prevalent belief in villages of Nepal and sought for traditional measures.

Her mother-in-law who was supportive during her ill hours, passed away 12 months back. With increased work burden, she was worried about her illness and family. Her sleep and appetite decreased. She frequently cried alone, more in 2-3 days after the seizure spells, in last 7 months. She repeatedly expressed guilt about not being able to adequately care

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the deceased mother-in-law, the idea not held by other family members. Her husband was surprised to hear death wishes and family shocked by her hanging attempt last month. The seizure frequency also increased in last 6 months.

Since there was deterioration of her condition and a health camp being organized locally, neighbors advised her husband to take her to the camp. She was referred from the camp to a higher centre for hospital admission because of increasing seizures, severe depression and suicidal threat.

Management was started with Sertraline 50mg, Olanzapine 2.5mg, Lorazepam 2mg SOS and SOS chemical restraint with injectable Haloperidol 5mg and Promethazine 25mg plus suicide precaution.

Her blood counts, random blood sugar, urea, creatinine, electrolytes and thyroid function tests, and CT-Head were normal. EEG indicated 'left temporal lobe seizure'.

She had no history of head injury or CNS infection in past and no substance use, recent fever, oedema, or icterus. They denied any close blood-relatives to suffer mental or similar illness.

A diagnosis of 'Seizure disorder and severe depressive episode with psychotic symptom' was made. Carbamazepine was added and optimized gradually to 400mg after a test dose. Her seizure stopped and depressive symptoms, including death wishes and guilty ruminations decreased to minimal at the time of discharge after 4 week hospital treatment. She was called for regular follow ups on out-patient basis.

Discussion

Various psychopathology may emerge in seizures at symptom or disorder level.^{1,2,4,9,10} A study conducted at BPKIHS among seizure cases referred to psychiatric service reported 45% with psychiatric disorder and rest with some clinically significant psychiatric symptoms.⁹

The ICD-10 incorporates under 'Organic disorders' and specifies according to major clinical picture when a disorder can be explained in the perspective of seizure. If mood symptoms predominate, it diagnoses 'organic mood disorder'; if anxiety, organic anxiety, etc.¹¹

Seizure patients may also show some emotional, psychological or behavioral disturbances, as a transient reaction to underlying illness.^{7,9,10} Sometimes, emotional reaction resembles the syndrome of

functional affective disorder, making the diagnosis complicated and confusing.

Moreover, psychiatric disorders co-occur independently in seizures. Many a time, it is difficult to disentangle organic from independent. Psychiatric co-morbidity, combined organic and independent or separate, has consistently been reported higher in seizure. As elsewhere, the BPKIHS study reported depression, mania,¹² anxiety, other neurotic (including dissociative conversion), psychotic disorders, personality and cognitive changes, and suicide/self injurious behaviors¹³ as major psychiatric problems.

Depression is among the most prevalent psychiatric disorders in general population, and more among seizure cases; reported in 7.5-25% of epilepsy cases,¹⁻³ 1.7 times in community and at least twice in clinical setting.³ Some longitudinal studies reported depressive disorder in up to 75% of seizure cases.³

Seizure and depressive disorder are speculated to have intertwined relationship and common neurobiological substrate.^{1,5} Depression is much more common than mania or mixed or bipolar mood.^{1,6} Seizure with foci in right temporal lobe is more associated with manic picture whereas it is inconclusive, though suggested, about the association of depression with left temporal lobe seizure.^{1,6} Our patient had left temporal seizure in EEG. Her mood symptoms were more severe for 1-3 days post-ictally, though were persistent and severe also other times, later. It suggests at least some contribution of seizure in the causation of depression though psycho-social stressor equally appears instrumental, highlighting complex 'bio-psycho-social model' of depression. Seizure itself is a stressor, associated with stigma, psycho-social burden, possible adverse drug events and deficit of etiological CNS pathology, etc leading to higher bio-psycho-social etiological factors of depression.

Some seizure patients have been reported to present with: dysphoric, low, depressed or irritable mood; decreased energy, esteem, interest, self confidence; disturbed sleep, difficulty with thinking, death wishes etc; features of depression for varying duration in different seizure (inter-/peri-/intra- or post-ictal) phases.^{2,3} In organic depression alone, the experience is reported mostly fragmentary and atypical. When these psychiatric symptoms appear in seizure, they will be associated with other seizure features, like headache, derealization, depersonalization, altered consciousness, amnesia, etc as in this case.⁵ This patient had also persistent and pervasive depressive

features which set in after the death of her mother-in-law. Both transient symptom and persistent comorbidity associations of depression are common with seizures.^{1,4,5,9,10} This case also highlights the co-occurrence of depression in seizure, both being common.

Many seizure patients come to clinical attention late when complicated because of various reasons.⁷ In Nepalese context, ignorance and stigma appear main. Our patient relied on magico-religious-traditional measures (with impression of 'jungali lageko') and her seizure remained untreated for 5 years. Depression is similarly not recognized and treated, more so among seizure cases.^{3,5} Untreated depression leads to exacerbation of seizure, distress, disability, loss of quality of life and suicide as in this case.⁶ Many people attribute depression to some life events only, without seeking for help. Had the local camp not organized then, she might not have been brought to clinical attention despite of suicidal attempt and worsening depression and seizure. Regular health camps may prove useful in providing psychiatric service to needy people in Nepal.

Any psychiatric disorder/symptom, including depression in seizure adds a challenge to management.⁶ Primary strategy would be the control of seizure which will ameliorate psychiatric symptoms if they occur at transient symptom level. While selecting anti-epileptic and other agents like antipsychotic, one with mood stabilizing effect should be the choice in cases of mood, e.g. carbamazepine (anti-epileptic) and olanzapine (anti-psychotic) in this case. Carbamazepine, Oxcarbazepine, Lamotrigine and Valproate are first choice in seizures with depression and suicidality whereas Phenobarbital, Topiramate and Vigabatrin may worsen affective symptoms.¹

Other concern is about the selection of seizure friendly antidepressant, e.g. Sertraline, a selective Serotonin reuptake inhibitor (SSRI) in this case or Doxepine, Desipramine, Trazodone, Trimipramine, or other SSRIs for treatment of co-morbid depression. Another equally important precaution is about possible drug interactions while using antiepileptic with other psychotropic.^{1,4,6,10}

Psycho-social intervention is vital part of management, e.g. here encouraging the mourning of the death of mother-in-law and psycho-education. Suicide, reported remarkably higher in seizures,¹³ deserves intensive intervention in crisis management and subsequent phases with suicide precaution and close monitoring along with the treatment of underlying illness.

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