CASE REPORT

Convulsions in the treatment of obsessive-compulsive disorder

SOUMYA BASU*, SUBHASH CHANDRA GUPTA **, S. HAQUE NIZAMIE ***

ABSTRACT

Obsessive-compulsive disorder (OCD) and epilepsy tend to share a close association. However, the exact relationship between OCD symptoms and epileptic convulsions is not well known. A case of OCD who improved remarkably following drug-induced seizures is described, implicating a role for convulsion as an alternative therapeutic modality in OCD.

Key words: Obsessive-compulsive disorder (OCD), seizure, epilepsy convulsion, electroconvulsive therapy (ECT)

Indian J Psychiatry 2005;47:173–174

INTRODUCTION

The antagonism between epilepsy and psychosis is well known in the literature.1 This clinical observation was the rationale behind the introduction of convulsive therapy in psychiatry.2 However, electroconvulsive therapy (ECT), regarded as the gold standard for treating depression, is generally viewed as having limited benefit in obsessive-compulsive disorder (OCD), despite isolated reports of its success in treatment-resistant cases.3,4 The authors describe a case of a patient with OCD who had remarkable improvement following drug-induced seizures, implicating a role for convulsion as an alternative therapeutic modality in OCD.

THE CASE

A 36-year-old married woman with a family history of OCD in the mother, father and a younger sister, presented to the OPD of the Central Institute of Psychiatry, Ranchi, with a history of occurrence of two attacks of seizures over a period of one year, and a history of psychiatric illness for the past six years characterized by obsessions of dirt and contamination, with compulsive ritualistic washing. The patient was on regular psychiatric care for the past 4–5 years and her treatment consisted of medication and behaviour therapy. She was on Tab. clomipramine 150 mg, Cap. fluoxetine 60 mg and Tab. buspirone 10 mg when she had the first attack of generalized tonic-clonic convulsions. During this period, the patient still had florid obsessive-compulsive symptoms as well as secondary depression. However, after the attack of seizure, her obsessive-compulsive symptoms improved by almost 50% and her depression also improved.

After the attack, the dose of clomipramine was reduced to 100 mg and the other medications continued as before. The patient continued to maintain the same clinical improvement. Four months after the first seizure, the patient had a similar attack of seizure. Within two days of this episode, a remarkable improvement in the OCD and depression was noted and, according to the patient and her husband, there was almost 100% improvement. The patient was next seen by a neurologist who started her on 400 mg of Tab. sodium valproate, she discontinued clomipramine on her own but continued to take Cap. fluoxetine 20 mg and Tab. buspirone 10 mg. A CT scan was done, which did not reveal any abnormality. An EEG done after the first attack and a Q-EEG done after the second attack did not show any abnormality. Two months after the seizure, the obsessive-compulsive and depressive symptoms re-emerged. She was symptomatic when she contacted us, her Yale-Brown Obsessive Compulsive Scale (YBOCS) score was 26, indicating a moderate level of symptoms.5 The patient’s medication was changed to Tab. sertraline 150 mg and she continued on Tab. sodium valproate 400 mg. When last contacted, she was better but had not reached the level of clinical improvement that she experienced after she had her second convulsion.

DISCUSSION

There is an inseparable relationship between OCD and epilepsy. Obsessive-compulsive-like personality changes are known to occur in long-standing epilepsy.6 Forced thinking mimicking obsessive thoughts is known to occur as an aura of frontal lobe seizures.7 There have been reports of clinical improvement of OCD in patients with epilepsy on carbamazepine monotherapy.8 There have been contradictory findings of cure for OCD9 as well as its causation after epilepsy.
surgery. However, even after a thorough literature search including a Medline one with the key words OCD, seizure and ECT, we did not find any report on improvement of OCD after seizures. Hence, to our knowledge, this case is the first one reporting an improvement of OCD with spontaneous occurrence of seizures. Similar improvement in psychotic illness is documented in the literature as already discussed. A similar observation was made in the 1960s when Landolt described forced normalization as a concept to a worsening of psychiatric symptoms when the EEG is normalized by antiepileptic therapy. Forced normalization is known to worsen psychosis and depression but little is known about its relationship with OCD symptoms. The occurrence of seizures in this case in the background of a normal CT scan and EEG can be explained by the use of the combination of clomipramine, fluoxetine and buspirone, each of which is individually known to reduce the seizure threshold and induce seizures. However, ideally the patient should have had an MRI scan which is more sensitive in detecting cerebral pathology. It could not be done in this case.

An interesting observation here is that an apparent treatment-resistant case of OCD improved abruptly with the accidental onset of seizures. The improvement was more marked after the second attack and the improvement lasted for almost two months. Such a high level of improvement of a chronic illness is remarkable. The clinical improvement of OCD and depression with spontaneous occurrence of generalized tonic–clonic seizures implicates a curative role for convulsions in treatment-resistant cases of OCD and secondary depressive symptoms. Currently, there are a few reports of improvement of treatment-resistant cases of OCD with ECT in the literature. In some instances, the favourable response to ECT was short-lived. Khanna et al. described 9 treatment-refractory patients with OCD (without depression) who underwent ECT, resulting in a more than 20% decline in global OCD ratings. However, all returned to their baseline illness by four months. In this case, a similar short-term benefit was noted after the episode of drug-induced seizures. The improvement occurred simultaneously in both the OCD and the depressive symptoms.

In conclusion, in this case, a major improvement of OCD symptoms with epileptic convulsions was observed. Hence, using convulsions in the form of ECT can be suggested as method of treatment. Such a recommendation has also been made in current protocols of treatment for drug-resistant OCD, especially with secondary depression.

REFERENCES

1. Fink M. Meduna and the origins of convulsive therapy. Am J Psychiatry 1984;141:1034–41.
2. Meduna LJ. Autobiography. Convuls Ther 1985;1:43–57.
3. Husain MM, Lewis SF, Thornton WL. Maintenance ECT for refractory obsessive–compulsive disorder. Am J Psychiatry 1993;150:1899–900.
4. Rudorfer MV. ECT in treatment refractory obsessive–compulsive disorder. In: Goodman WK, Rudorfer MV, Maser JD, et al. (eds). Obsessive–compulsive disorder: Contemporary issues in treatment. Erlbaum: Lawrence; 2000:431–55.
5. Goodman WK, Price LH, Rasmussen SA, et al. The Yale–Brown Obsessive Compulsive Scale. I. Development, use, and reliability. Arch Gen Psychiatry 1989;46:1006–11.
6. Bear DM, Fedio P. Quantitative analysis of interictal behavior in temporal lobe epilepsy. Arch Neurol 1977;34:454–67.
7. Chauvel P, Kliemann F, Vignal JP, et al. The clinical signs and symptoms of frontal lobe seizures. Phenomenology and classification. Adv Neurol 1995;66:115–25; discussion 125–6.
8. Koopowitz LF, Berk M. Response of obsessive–compulsive disorder to carbamazepine in two patients with comorbid epilepsy. Ann Clin Psychiatry 1997;9:171–3.
9. Barbieri V, Lo Russo G, Francione S, et al. Association of temporal lobe epilepsy and obsessive–compulsive disorder in a patient successfully treated with right temporal lobectomy. Epilepsy Behav 2005;6:617–19.
10. Kulaksizoglu IB, Bebek N, Baykan B, et al. Obsessive–compulsive disorder after epilepsy surgery. Epilepsy Behav 2004;5:113–18.
11. Krishnamoorthy ES, Trimble MR, Sander JW, et al. Forced normalization at the interface between epilepsy and psychiatry. Epilepsy Behav 2002;3:303–8.
12. Rosenstein DL, Nelson JC, Jacobs SC. Seizures associated with antidepressants: A review. J Clin Psychiatry 1993;54:289–99.
13. Khanna S, Gangadhar BN, Sinha V, et al. Electroconvulsive therapy in obsessive–compulsive disorder. Convuls Ther 1988;4:314–20.
14. Maletzky B, McFarland B, Burt A. Refractory obsessive–compulsive disorder and ECT. Convuls Ther 1994;10:34–42.

Soumya Basu* Ex-Senior Resident
Subhash Chandra Gupta** Ex-Junior Resident
S. Haque Nizamie*** Professor of Psychiatry and Director
Central Institute of Psychiatry, Kanke, Ranchi 834006, India

Correspondence to: Soumya Basu, Consultant Psychiatrist, Latrobe Regional Hospital, Traralgon, Victoria, Australia
e-mail: soumya_basuin@yahoo.co.in, soumya_basuin@rediffmail.com