ECT Use in Refractory Obsessive-Compulsive Disorder

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ÖZET: Dirençli obsesif-kompulsif bozuklukta EKT


Anahtar sözcükler: Obsesif-kompulsif bozukluk, elektrokonvülsif terapi, antidepresan, antipsikotik

Klinik Psikofarmakoloji Bülteni 2010;20:167-170

INTRODUCTION

ECT has occasionally been used for the treatment of anxiety disorders and currently no existing guideline considers anxiety disorders as a primary indication for ECT (1-3). Nevertheless, obsessive-compulsive disorder (OCD) is relatively the most common anxiety disorder in which ECT is administered. Guidelines and some authors do not recommend ECT for OCD in the absence of some comorbid indication. The primary indication would be the severe depression with which intractable OCD is often associated (4).

ECT is believed to increase serotonergic function (5), so some authors suggest that ECT might be a useful treatment in refractory OCD cases (6,7). Although use of ECT for OCD is controversial and the literature is difficult to interpret due to limitations of studies, there are numerous reports of refractory OCD patients treated successfully with ECT (8,9).

In this paper, we present two treatment refractory OCD cases successfully treated with ECT.

CASE 1

BC was a 37 year-old woman. She was admitted to psychiatry unit for treatment of OCD with unwanted recurrent thoughts which had continued for the past six months. She had three hospitalizations in different institutions. During the most recent hospitalization at our hospital, she was diagnosed with “depression with psychotic features” and was treated with escitalopram 10mg/day and quetiapine 400-1200mg/day. She was
noted to have shown a remarkable recovery with a single session of ECT and was discharged with escitalopram 10mg/day and olanzapine 30mg/day. She relapsed and was rehospitalized a week later.

She was hospitalized 13 years ago with obsessive-compulsive symptoms about fears of losing her virginity with sharp metal objects. In the days before her upcoming wedding, she would not sit or walk because she feared needles could harm her hymen. She had a conversion seizure at her wedding night. Ten days after her wedding she was hospitalized for a week and partially recovered with some medications. After discharge, she discontinued her medication.

Psychiatric examination revealed lack of self-care, psychomotor agitation, prominent obsessive-compulsive symptoms, depressed mood, and anxiety. Her obsessive thoughts were so severe that she would constantly ask questions to everyone. She had obsessional thoughts about sexuality, harmfulness, and intense feelings of guilt. The diagnosis of OCD was confirmed by SCID-I. The score of Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) was 40. Physical and neurological examinations were normal. Laboratory tests including chemistry profile, complete blood count (CBC), thyroid hormone tests, urinalysis and electroencephalography (EEG) findings were normal. Her medical and family histories were unremarkable.

She was treated with numerous medications and cognitive-behavioral therapy (CBT) during a hospitalization period of over 4 months and was diagnosed with refractory obsessive-compulsive disorder. High doses of selective serotonin reuptake inhibitors (SSRIs) plus atypical antipsychotics (escitalopram 20mg/day, fluvoxamine 350mg/day, risperidone 4-6mg/day, amisulpride 400-600mg/day) were ineffective, so the medications were tapered down and stopped. Eight sessions of ECT were administered with haloperidol 20 mg/day and biperidene 10 mg/day after second ECT. Haloperidol was added to treatment because the patient’s compulsions led to severe agitation and excitation. Her symptoms remitted almost entirely with ECT. The score of Y-BOCS after ECT treatment was 4. Clomipramine was begun and titrated up to 225 mg/day; and quetiapine was added and titrated up to 600mg/day. It was discontinued from oversedation despite a decreased dose of quetiapine. Carbamazepine was added because of episodic course. The patient treated with clomipramine plus fluvox ol 6mg/day and carbamazepine 200mg/day was discharged in complete remission.

**CASE 2**

ND was a 43 year-old woman. She was admitted with disturbing thoughts related to persecution, sexuality, and suicidality. Her symptoms started a year ago when her son decided to be a policeman. She had sadness, anhedonia, anergia, and crying. She had obsessional thoughts that Devil would make her do evil. She switched the TV channels continuously. She thought that the bad things on screen would happen to her. She feared that her neighbors would harm her. She also had obsessive thoughts about harming herself/ them. She admitted these thoughts and fears to be absurd and unrealistic yet could not help thinking so. She had suicidal thoughts but no attempts.

She was treated with numerous psychotropic medications and CBT at various institutions. She used mainly antidepressants, SSRIs, maprotilline, and trazodone, concomitant with anxiolytics, hydroxyzine and risperidone. Information about the exact dose and duration of these medications could not be ascertained. Her last regimen in our hospital’s outpatient clinic was sertraline 100mg/ day, risperidone 1 mg/ day, maprotilline 25mg/day and medazepam 10mg/day. In first hospitalization in our hospital, she was diagnosed with major depression with psychotic features. She was treated with sertraline 200mg/day, alprazolam 1.5mg/day, risperidone 4mg/day and biperidene 2mg/day. In the second week of hospitalization, due to lack of response to treatment, sertraline was switched to paroxetine, titrated up to 40mg/day, after which her symptoms remitted and she was discharged.

Although she continued her medication, she relapsed and was readmitted to hospital. She had no psychiatric family history. Psychiatric examination revealed diminished self-care, psychomotor retardation, depressed mood, and persistent obsessive-compulsive symptoms of fear of causing harm and unwelcome sexual thoughts. She showed no evidence of delusions and hallucinations. She had no cognitive impairment. The patient was diagnosed with OCD by SCID-I. The score of Y-BOCS was 40. Physical and neurological examinations were normal. Laboratory tests including chemistry profile, CBC,
thyroid hormone tests, urinalysis were normal. Fluvoxamine was titrated up to 300mg/day. Risperidone 3mg/ day and alprazolam 1.5mg/day were added. In the third week of her admission due to unresponsiveness to medications and suicidality, her drugs were tapered down and stopped. She was diagnosed with refractory obsessive-compulsive disorder. Then, seven sessions of ECT were applied. A marked improvement was observed after the third session and a near-total remission of symptoms occurred by the seventh session. The score of Y-BOCS after ECT treatment was 2. After the third session she had anxiety and agitation related to ECT. So, quetiapine 300mg/ day was started. After the ECT course, fluoxetine 20mg/ day and alprazolam 1mg/day was added. She was discharged in clinical remission and is still in remission after fifteen months. Informed consent was obtained from both patients.

**DISCUSSION**

In this case report, ECT was effective in treatment of OCD. In our cases, an atypical antipsychotic agent was added as an augmentation strategy which is recommended in refractory OCD cases (8). Before our cases of refractory OCD were treated with ECT, their previous diagnoses were major depression with psychotic features. This is consistent with literature in that OCD patients are in fact very much predisposed to severe depression. When depression supervenes, OCD is often overlooked (10). An OCD case comorbid with recurrent treatment resistant psychotic depression was in full remission after only one session of unilateral ECT, but this response was short-lived (11).

A confusing and often conflicting literature exists regarding the treatment of OCD with ECT, most of it is anecdotal and consists of a few cases. In our country, a survey about ECT use has revealed 0.13% patients with OCD among a total of 1.531 patients receiving ECT (12). Some authors reported single cases of OCD that responded favorably to ECT (6,7,13,14). Khanna et al. reported short-lived antiobsessional effect of ECT in nine OCD cases (15). The remission in OCD was correlated with improvement in mood only in some cases. They argued that ECT might have specific antiobsessional properties. Beale et al also reported three cases of refractory OCD, all of whom improved considerably with ECT (16), similar to our cases.

Mellman and Gorman’s case was atypical with a rather late onset with features of depression (6). Two other cases were both female patients with long lasting OCD treated with ECT in later life after intractable depression developed (7,14). In a retrospective chart review, 32 patients with OCD were treated with ECT (17). Nineteen patients had no comorbid depression. All patients had received both cognitive-behavioral therapy and pharmacotherapy with no result. Following ECT most of the patients showed considerable improvement in obsessive-compulsive symptoms. All patients with and without depression had benefited from ECT. The effect of ECT on OCD was independent of its effect on depression. Although onset is often gradual in OCD, acute onset has also been noted in some cases (18). In our first case, both a previous distinct, time-limited OCD episode with an acute onset and an abrupt, prolonged remission is described and the second episode also started acutely. Episodic characteristic and its possible link to bipolarity might have potential important implications about treatment. Such cases like our first case may respond to mood stabilizers and ECT. Concomitant high dose medication use and polypharmacy are the limitations for ECT efficacy in our cases.

Refractory OCD is a disabling condition and such patients are not rare in clinical practice despite recent advances in behavioral and pharmacological treatment. ECT should primarily be considered for patients with treatment resistant OCD in the context of major depression (19). Besides, for OCD patients who fail to respond to pharmacotherapy and cognitive behavioral therapy, ECT may still be a useful alternative. Further research may clarify which OCD patients are appropriate candidates for ECT.
References:


