

Case Report

Maintenance ECT over Nine Years in Schizoaffective Disorder

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Abstract

Maintenance ECT (M-ECT) is a controversial treatment that is used all too infrequently in patients with resistant and recurrent affective or psychotic disorders. Here we present the case of a 45 year old woman suffering from schizoaffective disorder who has been successfully treated with M-ECT in combination with antipsychotic and antidepressant medication after a lengthy period of multiple relapses and hospitalisation. We propose that M-ECT can be an effective and safe treatment modality in combination with medication to manage resistant and recurrent schizoaffective illness in selected patients (German J Psychiatry 2010; 13 (2): 100-103).

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Mrs S is a 45 year old woman diagnosed with schizoaffective disorder with extensive contact with psychiatric services for the last 29 years. In the past various other diagnoses have been considered including recurrent depressive disorder, bipolar disorder, and borderline personality disorder.

She presented to mental health services for the first time at the age of 12 after an overdose following which she had numerous depressive episodes (> 8 episodes), including two periods of post natal depression. Her presentation was usually characterised by episodes of depressive symptoms including low mood, reduced appetite, impaired sleep, along with incongruent psychotic symptoms such as auditory hallucinations, and delusions of persecution. Other episodes of illness showed predominant psychotic features as well as

intrusive, repetitive frightening thoughts and increasingly risky behaviour with self harm of moderate to severe intensity. The episodes were nearly always precipitated by a life stressor including interpersonal relationship difficulties. These led to several admissions to mental health units which ranged from 1 month to 9 months. In between episodes of illness Mrs S was able to lead a reasonably normal life although the duration of periods of stable mental health varied considerably.

Mrs S had a normal birth and achieved milestones at the appropriate age. Her father was an alcoholic who physically abused her and she had a poor relationship with her mother. No other adverse events were noted in her childhood but she has described the situation at home as being difficult and unhappy. She has been married for nearly 30 years with a supportive husband and two grown up children. Mrs S has been noted to be susceptible to psychosocial stressors but has managed to deal with them more effectively in recent years. There is no illicit drug history although and at one

point in the past she was thought to be dependent on alcohol. At present she drinks alcohol on occasion some times in excessive binges which are invariably followed by a transient lowering of her mood.

Prior to treatment with ECT she was treated with various typical and atypical antipsychotics, antidepressants like SSRIs, TCAs, Mirtazapine, Venlafaxine as well as mood stabilisers with little significant improvement. Most were at therapeutic doses for adequate duration of time. She experienced side effects with therapeutic doses of antidepressants and suffered a seizure in response to a SSRI. Mrs S demonstrated an initial improvement on Clozapine which also needed to be discontinued shortly after initiation after she suffered a seizure and was reluctant to continue. She had never had a history of convulsions or epilepsy prior to these fits. Mrs S has always been reluctant to engage in psychological therapy.

Mrs S was established on M-ECT 9 years ago with good effect. She was initially treated with bilateral ECT at a frequency of two treatments weekly for 6 weeks followed by weekly sessions for 2 years. Since then she has been treated with M-ECT once a fortnight. When the frequency was decreased to once every three weeks Mrs S' mental state showed signs of deterioration with the emergence of depressive symptoms and rumination. She was re-established on fortnightly M-ECT and this was accompanied with a clinical improvement. She is very insightful into her relapse signature and quickly alerts services to worsening mood symptoms or the re-emergence of psychosis. The treatment response has been to increase the frequency of ECT to weekly or on two occasions twice weekly for a duration of two or three weeks. This invariably results in an extremely quick positive response and recovery. In total Mrs S has had 347 bilateral ECT applications to date that continues at the time of this report. A significant subjective and objective improvement in Mrs S's depressive and psychotic symptomatology including a reduction in self harming behaviour has been noted. The frequency of re-hospitalisation and relapse has decreased by more than half after commencement of M-ECT demonstrating its effectiveness in her case.

After the initiation of therapy with M-ECT Mrs S had three major relapses, all related to discontinuation of M-ECT - once due to surgical illness which needed admission and other two due to seizures thought to be due to reduced seizure threshold triggered by antipsychotic medication. On each occasion, re-establishment on M-ECT immediately proved to be effective with good symptom control. Cognitive effects were no greater than with acute ECT treatment and there was no evidence of progressive cognitive decline on annual testing. Mrs S has tolerated M-ECT well with no significant side effects. At the time of writing this report Mrs S has taken up voluntary work for 3 hours once a week at the hospital and is hoping to start work as a carer for the elderly via a voluntary bureau in the near future. Her present medication is Olanzapine 15mg, Sodium Valproate 1200mg and Diazepam 30mg daily. She continues to have ECT every fortnight as an outpatient.

Discussion

Maintenance Electroconvulsive (M-ECT) therapy is a controversial treatment that is used infrequently. In its guidance on the use of ECT, the National Institute of Clinical Excellence stated that there was no conclusive evidence to support either the effectiveness of ECT beyond the short term or that M-ECT was more beneficial in depressive illness than pharmacological alternatives. NICE highlighted its concerns that the value of ECT maintenance therapy remained unproven in the context of the lack of information on whether the adverse effects including the effects on cognitive function were cumulative with repeated administration (NICE, 2003). Our discussions with different psychiatrists have revealed an unwillingness to consider the option of M-ECT in view of the NICE guidelines. While most of the existing literature on M-ECT consists of case reports, case series and longitudinal studies which aim to support the use of M-ECT where there are partial or failed responses to other lines of management, a review of the evidence in 2002 suggested that maintenance ECT appeared to be a safe and effective treatment for relapse and recurrence prone patients who have responded to previous ECT (Andrade et al., 2002).

M-ECT has been demonstrated to be effective in a variety of diagnoses including recurrent depressive disorders, bipolar affective disorder, schizophrenia, obsessive compulsive disorder, as well as affective disorders co-existing with dementia and neurological disorder (Rabheru et al., 1997). Schwarz et al report that indications in terms of patient selection criteria and efficacy are uncertain, partly because of a lack of data. A comparison of M-ECT patients with controls suggests that M-ECT is chosen for patients whose course is characterized by multiple hospitalizations and failure to adequately respond to other therapies. Patients on M-ECT were exposed, on average, to 10 different psychotropic medications (Schwarz et al., 1995). Published and emerging data continue to support the use of M-ECT, particularly in those individuals with medication-refractory, ECT-responsive, and relapse-prone depression (Frederikse et al., 2006). Russell et al reported that extended ECT is efficacious, well tolerated and reduces hospital use for a population of chronically depressed patients refractory to medication (Russell et al.,). There are also reports of its use in intractable catatonic schizophrenia. Maintenance ECT with increased frequency deserves consideration in middle-aged and elderly patients with intractable catatonic schizophrenia who suffer relapse during continuation ECT (Suzuki et al., 2006). Rabheru et al have suggested that a rational approach to the care of patients with major psychiatric disorders, should include the careful consideration of ECT along with other alternatives (Rabheru et al., 1997). In our case report our patient has schizoaffective disorder characterized by recurrent relapses and numerous periods of frequent hospitalisation prior to M-ECT.

One of the major issues with M-ECT is the perceived strength of its association with long term cognitive side effects. Vothknecht et al examined cognitive side effects of M-ECT in comparison with maintenance pharmacotherapy after an initial course of ECT. Neuropsychological function-

ing during the maintenance phase of treatment did not differ between the two treatment groups and cognitive function remained stable during maintenance ECT (Vothknecht et al., 2003). In a case report with serial psychometric testing during over 400 M-ECT treatments there were no further cognitive effects after the initial course of ECT and these seemed to be non-progressive (Barnes et al., 1997). This was confirmed by a study of 20 psychiatric outpatients on M-ECT whose cognitive functions were measured over a one year period. No significant association was found between cognitive decline and M-ECT (Rami et al., 2004). M-ECT over a course of 7 years has been reported in a patient with recurrent depressive episodes with psychotic symptoms without the need of an antidepressant or mood stabilizer and mild cognitive deficits that did not worsen after the initial ECT (Wijkstra et al., 2005). Our patient in this report has not shown any evidence of progressive cognitive impairment on testing at regular intervals.

The American Psychiatric Association Committee on ECT suggests that the necessity for continuing ECT is most often reviewed at 6 and 12 months. It further recommends that attempts should be made to reduce the frequency of ECT administration to once a month, Russell et al in a retrospective review suggested experience of patients who showed signs of illness recurrence at such intervals. The review stated that some patients had been treated for extended periods of time every 10 to 14 days. The review further suggested that the benefits of the treatments must be weighed against the inconvenience, lost work days, and ongoing memory dysfunction associated with such aggressive schedules (Russell et al., 2003). Our patient had ECT at fortnightly intervals with depressive symptoms re-emerging when the frequency was reduced to three weekly administration. Symptom resolution was achieved by increasing the frequency of M-ECT.

The cost effectiveness of all treatments is particularly important in the UK in the face of increasing demand for health services. The effectiveness of outpatient maintenance ECT for bipolar depression particularly with regard to safety, efficacy, and significant health care cost reduction has been reported (Bonds et al., 1998). M-ECT may be more cost-effective than maintenance pharmacotherapy in the maintenance treatment of older adults with depression who have responded to a course of acute ECT (Aziz et al., 2005). The direct cost of outpatient maintenance ECT has been estimated to be less than one-third the cost of the pre-maintenance ECT period in addition to the indirect savings of an increase in work days and productivity for many patients, less restricted lifestyle, and improved satisfaction for most patients and families (Steffens et al., 1995). A review of the outcomes of M-ECT showed the rate of re-hospitalisation decreased by 67% after the institution of M-ECT (Andrade et al., 2002). The frequency of our patient's relapses and admissions to hospital reduced after she was started on M-ECT.

From our report we can conclude that the use of M-ECT in this patient resulted in little or no long term cognitive side effects and was well tolerated over a period of 9 years. We demonstrate positive outcomes of a reduction in symptoms, relapse rates and re-hospitalisation as well improved social

inclusion and employment in an individual with longstanding difficulties. The use of M-ECT is continuing after regular reviews by specialists and at the request of the patient. It has been suggested that NICE's recommendation discouraging the use of M-ECT will limit the patients' right to choose their treatment as the few patients who are considered for maintenance ECT live in the community and, therefore, are not subject to the Mental Health Act 1983 and will receive M-ECT because they want to and will have at any time the right to withdraw from it (Procopio, 2003). Published literature suggests that in carefully selected and treatment refractory patients M-ECT can be a safe, clinically and economically effective alternative, which can reduce relapse rate, frequency and hospitalisation with the possibility of improvement in quality of life. We leave the readers with a positive conclusion and suggest there is a need for robust evidence on this potentially beneficial treatment.

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