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Brief report

Maintenance electroconvulsive therapy: An alternative treatment for refractory schizophrenia and schizoaffective disorders

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ABSTRACT

This retrospective chart review of a clinical cohort of 19 refractory schizophrenic or schizoaffective patients treated with maintenance electroconvulsive therapy addresses the indications for this treatment, its efficacy, and its impact on daily functioning and hospitalizations. Maintenance electroconvulsive therapy combined with medication appears to be an efficient alternative to pharmacological treatment alone.

1. Introduction

Electroconvulsive therapy may be indicated for refractory schizophrenia and schizoaffective disorder (American Psychiatric Association, 2001; Fink, 2004). Moreover, some studies proposed maintenance electroconvulsive therapy (M-ECT) (Chanpattana et al., 1999; Chanpattana, 2000) beyond acute episodes.

2. Methods

Clinical and therapeutical considerations are presented here from a retrospective chart review of 19 cases of schizophrenic or schizoaffective patients (DSM-IV, American Psychiatric Association, 1994), with a refractory disorder according to Kane's criteria (Kane et al., 1988), and treated at the academic department of psychiatry, Sainte Anne hospital, in Paris.

3. Results

Eleven schizophrenic and eight schizoaffective (age = 47.5, S.D. = 12.75) patients received M-ECT between 1991 and 2005. Clinicians had decided M-ECT was indicated when a total or a partial failure of neuroleptic treatment had led to an increased frequency of acute episodes indirectly measured by the number of hospitalizations per year (9 patients) or to an increase of symptom intensity as measured by suicidal ideas, delusions, and anxiety (10 patients). In all cases there was at least one history of positive response to treatment with ECT in an acute phase of the disease.

Patients included received an average of 47 sessions of bilateral M-ECT under general anaesthesia at 1- to 8-week intervals for a mean period of 43 months. Clinical and therapeutic history of each patient is summarized in Table 1. Every patient was also treated with antipsychotics; in addition, 30% received mood stabilizers and 10% antidepressants.

In this cohort, studied retrospectively, M-ECT appeared efficient on mood symptoms, delusions, anorexia, suicidal impetus, and anxiety symptoms. It seemed to improve cooperation and treatment compliance. Efficacy in the treatment of atypical obsessive-compulsive symptoms was less obvious, and no effects on dissociation and negative symptoms were observed. Residual symptoms that are observed after M-ECT are essentially negative symptoms, such as apathy, anhedonia, poor or nonexistent social functioning; delusions might also persist.

We also observed that under M-ECT, the mean duration of yearly hospitalizations was decreased by 80% from 10.5 (S.D. 17) months the year preceding M-ECT down to 2.1 (S.D. 2.04) months after the beginning of M-ECT. The mean duration of each hospitalization was decreased 40%, from 4.13 (S.D. 4) months before M-ECT down to 2.53 (S.D. 3.47) months.

We also observed an improvement in daily functioning for most of the patients with a better ability to take part in activities, and to return home or go back to work (one patient). Two patients moved from full-time hospitalization to day hospital treatment and residence in a halfway house.

We observed a total of 43 relapses in 14 patients, while five patients did not relapse. Twenty relapses occurred with no obvious trigger factor and no modification of the course of the M-ECT. Sixteen relapses occurred contemporaneously with an extended interval between M-ECT sessions, five contemporaneously with the discontinuation of M-ECT at the patient's request, 1 secondary to a major life event stress (physical aggression), and one contemporaneously with intolerance to M-ECT.

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Table 1
Clinical characteristics of 19 patients treated with M-ECT, before and during M-ECT.

	Age (onset), gender, diagnosis	Before M-ECT					During M-ECT				
		Number of acute ECT sequences (number of ECT/ sequence)	Main symptoms	Yearly hospitalization duration (months)		Drug treatment	Total number of M-ECT	Frequency of M-ECT (weeks)	Drug treatment	Clinical efficacy	Yearly hospitalization duration (months)
				Past 3 years	Past year						
1	49 (28) M SAF	1 (6)	Mood symptoms (depression), specific phobia, dissociation, positive symptoms.	5.7	10	AD FGA	59		FGA	+mood symptoms, −dissociation, delusion, phobia	3
2	37 (27) F SAF	5 (15/7/10/19/10)	Mood symptoms (depression), somatic complaints, dissociation, negative symptoms	1.3	2	AD SGA LI VP CBZ	28	5	FGA LI	+mood symptoms, somatic complaints, −negative symptoms, dissociation	0
3	30 (12) M SCZ	1 (9)	Fragmentation anxiety, dissociation, positive symptoms	?	6	AD FGA LI VP CBZ	32	3 to 8	FGA LI	+mood symptoms, ±fragmentation anxiety, positive symptoms	1.17
4	45 (26) M SCZ	1 (9)	Anxiety, positive symptoms, mood symptoms, negative symptoms	?	12	AD FGA LI VP CBZ	37	1 to 5	FGA	+mood symptoms delusion, anxiety, −negative symptoms	0
5	42 (20) M SAF	3 (7,7, 2)	Fragmentation anxiety, positive symptoms, mood symptoms (depression)	4	9	AD FGA LI VP CBZ	39	4 to 8	FGA	+delusion, ±anxiety, −dissociation, fragmentation anxiety	4.4
6	56 (38) F SCZ	2 (10/17)	Anxiety, somatic complaints, mood symptoms, positive symptoms	1	2	AD FGA	22	2 to 5	SGA AD	+mood symptoms, delusion, somatic complaints, ±anxiety	0
7	37 (22) F SAF	1 (14)	Dissociation, somatic complaints, rituals, positive symptoms, mood symptoms (depression)	2	3	AD LI VP CBZ	12	1	LI SGA	+somatic complaints, −dissociation, rituals	6.7
8	65 (20) SAF	1 (15)	Dissociation, positive symptoms, mood symptoms (depression), anxiety, somatic complaints negative symptoms	4	10	FGA LI VP CBZ	68	3 to 8	FGA VP	+anxiety, somatic complaints, −negative symptoms	1.7
9	59 (35) F SCZ	2 (12 /12)	Somatic complaints, rituals, dissociation, mood symptoms (depression),	1	3	AD FGA	54	5	FGA	+delusion, −rituals, compulsion, depression symptoms	1.8
10	63 (20) F SCZ	2 (15/12)	Atypical obsessive-compulsive symptoms, anxiety, difficulties in interpersonal relation, dissociation, negative symptoms	3.3	6	AD FGA	95	2 to 8	FGA	+anxiety, mood, interpersonal relations, −negative symptoms, atypical obsessive-compulsive symptoms	0.3

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