B. SUICIDE AFTER UNILATERAL ECT IN A PATIENT PREVIOUSLY RESPONSIVE TO BILATERAL ECT

John D. Gambill, M.D.
Paul E. McLean, M.D.

A 34-year-old schizophrenic committed suicide after his fourth unilateral electroconvulsive treatment. He previously responded successfully to seven bilateral treatments. The authors hypothesize that unilateral ECT may post a greater risk than bilateral ECT for the delusional suicidal patient. The rationale underlying this hypothesis states that the greater temporary disruption in cognition and memory associated with bilateral ECT is actually desirable in suicidal patients although it is an unwanted side effect in nonsuicidal patients. Since energy and mood often improve before delusions, bilateral ECT may neutralize delusions during the time of maximum suicidal risk as patients begin to improve.

Electroconvulsive therapy (ECT) has generally been accepted as a prime treatment modality for the suicidal patient because of its superior antidepressant efficacy and rapidity of response. In recent years there has been a trend toward using more nondominant unilateral ECT to replace the traditional bilateral ECT. The rationale behind this switch involves less disruption of verbal and nonverbal memory with unilateral ECT. Some have considered the overall efficacy of both types of treatment to be approximately equivalent in terms of reduction of depressive symptomatology and relapse rates. However, others have suggested that unilateral ECT may be less effective both immediately and overall because of occasional failures to produce maximal seizures as well as the need for an increased number of treatments in order to achieve an optimal therapeutic response.

Efficacy and the number of treatments required for clinical response is also a function of diagnosis, severity of illness, and mode of induction. Depressed patients often need only six to ten treatments whereas schizophrenic patients may require ten to 20. This may be related to schizophrenics showing little correlation between suicidal intent and overall depressive symptomatology.
although they show a much greater correlation between suicidal intent and hopelessness. 

The issues of rapidity of response to treatment and overall efficacy are most crucial in the suicidal patient, regardless of diagnosis. The following case report of a patient with schizoaffective schizophrenia who previously responded well to seven bilateral ECT treatments but who several years later committed suicide after his fourth unilateral ECT treatment suggests that bilateral ECT may be preferable for the patient at high risk for suicide.

CASE REPORT

The patient was a 34-year-old, divorced male with an 18-year history of mental illness characterized by auditory and visual hallucinations, loose associations, sexual preoccupation, paranoid and grandiose delusions, depression, and several suicide attempts. His diagnosis was schizophrenia, schizoaffective type, and he had been hospitalized at least 18 times within the past 13 years. Prior treatment of the patient’s illness consisted on different occasions of the following medications: trifluoperazine up to 40 mg/day, chlorpromazine up to 1800 mg/day, haloperidol up to 60 mg/day, and molindone up to 100 mg/day. Psychotic symptoms still persisted even at doses sufficient to produce significant extrapyramidal side effects. Past attempts to treat the depressive aspects of the patient’s illness with amitriptyline up to 150 mg/day and desipramine up to 150 mg/day resulted in an exacerbation of the psychosis with euphoria, agitation, and increased thought disorder.

Following an unsuccessful suicide attempt by jumping into a river in 1979, the patient received seven bilateral ECT treatments with the resultant lifting of depression and temporary cessation of suicidal ideas. He was then put on 1800 mg/day of lithium carbonate (blood level of 1.0 meq/1) and fluphenazine decanoate, 50 mg. 1.M Q 2 weeks. This resulted in a marginal adjustment as an outpatient for 14 months. However, he continued to be preoccupied by impotence, had delusions that he was Jesus Christ, and was depressed about not being able to spend enough time with his five-year-old son.

The most recent hospitalization was precipitated by the patient’s threats to kill his mother. Because of increasing feelings of depression and hopelessness interspersed with some manic symptoms of pressured speech and sexual approaches to female staff members, the patient was started on ECT. He was given four right unilateral treatments with MECTA equipment using the D’Elia electrode placement and became more subdued with less sexual acting out and less agitation. He eloped from the hospital the afternoon after his fourth treatment and committed suicide the next day by jumping off a bridge. A suicide note revealed that the patient was still delusional and preoccupied with separation from his son.

DISCUSSION

Seizure durations of 40, 40, 45, and 65 seconds as documented by the EEG monitor of the MECTA machine for the four unilateral treatments of this patient suggest that adequate seizures occurred. The fact that the patient started to show improvement by exhibiting less sexual preoccupation, agitation, and pressure of speech further attests to the adequacy of the seizures. However, it ap-