



Libyan International Medical University

Faculty of Basic Medical Science



ECT Effective for Treatment of Schizophrenia

Submitted by: Aya Ragab B. Roaeid .

Supervisor: Dr. Nawar Montaser .

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Introduction:

Schizophrenia is a mental disorder characterized by loss of contact with reality (psychosis), hallucinations (usually, hearing voices), firmly held false beliefs (delusions), abnormal thinking and behavior, reduced expression of emotion, diminishes motivation, a decline in mental function (cognition), and problems in daily functioning including work, social, relationships, and self-care.

It can be caused by hereditary and environmental factors and the diagnosis is based on symptoms.

It affects 1% of the population. Men and women are affected equally.

Causes:

- Genetic predisposing.
- Infections of the brain.

Symptoms:

- Positive symptoms: an excess or distortion of normal functions .
- Negative symptoms: diminution or loss of normal functions and affect .
- Disorganization: thought disorders and bizarre behavior.
- Cognitive impairment: deficits in information processing and problem solving .

Treatment:

- Antipsychotic drugs.
- Support services.
- Psychotherapy.¹

ECT (Electroconvulsive Therapy):

It was first introduced as a treatment for schizophrenia in 1938 by Ugo Cerletti and Lucio Bini. It is usually used in addition to antipsychotic drugs.

It is used in schizophrenia for catatonia, past history of good response to ECT, and in treatment resistance.²

Discussion:**First study:**

Researchers, led by Tyler Kaster, M.D, with the University of Toronto, examined the clinical records of 144 patients with a diagnosis of schizophrenia who received ECT and determined treatment response and adverse cognitive effects.

It shows that more than three-quarters of participants (77%) responded to the ECT treatment, demonstrating the clinical effectiveness of ECT for the treatment of schizophrenia. Also the side effects were lower than expected based on ECT used in patients with depression.³

Second study:

It explains the indications for which patients with schizophrenia receive ECT.

They studied records of schizophrenia in patients receiving ECT in one year (2005) ($n=101$) retrospectively, as well as the consecutive data of patients between May 2007 and June 2008 ($n=101$) prospectively. Of the 202 schizophrenia patients who received ECT, the most common reason was 'to augment pharmacotherapy' in ($n=116$) cases. The target symptoms for which ECT was prescribed the most was catatonia ($n=72$). The mean number of ECTs (SD) received was 8.4 (2.8). Augmentation of pharmacotherapy was the most common indication of ECT in patients with schizophrenia.

They found that catatonic schizophrenia responds faster to ECT than non-catatonic schizophrenia.

The indications for ECT were noted from the ECT record, which had the following options: (1) Adequate dosage and duration of the drug therapy that failed; (2) urgency of treatment; (3) Drug compliance; (4) drug intolerance; (5) ECT was effective earlier; (6) ECT was chosen as the first line of treatment; (7) ECT was needed to augment drug therapy.

The outcome of ECT was assessed by a visual analog scale (1-5) administered by the primary investigator, after reviewing notes of the consultant psychiatrist and taking into consideration his opinion about the

overall improvement at the end of the course of ECTs. Adequate improvement was defined as a score of three or more; while inadequate improvement was a score of two or less than two.³

Third study:

Multiple studies show that the combination of ECT and conventional antipsychotic drug is associated with better outcome than either ECT alone or antipsychotic drug alone.

Therefore, a combination of ECT with pharmacotherapy including clozapine may be effective for the pharmacotherapy -resistant schizophrenia.

A study by Georgios Petrides, MD, from the Zuckerside Hillside Hospital, in Glen Oaks, New York, and that was colleagues published in 2015 in the *American Journal of Psychiatry* showed that in patients with treatment-resistant schizophrenia, ECT yielded a substantial 50% response rate when used as adjunctive therapy with clozapine

And this improvement is not only in psychopathology but also in quality of life and social functioning.^{4,5}

Conclusion:

Electroconvulsive therapy can be a clinically effective treatment for patients with severe forms of schizophrenia.

References:

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