Ethical Viewpoint Paper

Electroconvulsive Therapy – Ethical Issues

Pragya Lodha[1] Anoushka Thakkar[2] Avinash De Sousa[3]

[1]Clinical Psychologist, Private Practice, Mumbai.
[2]Undergraduate Student, Psychology, Sophia College, Mumbai
[3]Research Associate, Department of Psychiatry, Lokmanya Tilak Municipal Medical College, Mumbai.
Corresponding Author: Avinash De Sousa
E-mail: avinashdes888@gmail.com

INTRODUCTION

Electroconvulsive Therapy (ECT) is a brain-based treatment modality that falls under the medical treatment methods. It involves a brief electrical stimulation of the brain while the patient is under anesthesia [1]. ECT is typically administered by a team of trained medical professionals that includes a psychiatrist, an anesthesiologist and a nurse / physician assistant. ECT is typically used when other treatments, including medications and psychotherapy, haven't worked. It is used when patients are sole bread winners and need faster recovery and to reduce the number of days spent on a hospital day. In the Indian scenario where there would be only one bread winner for the household, getting back to work faster is a priority. Due to the lack of a prevailing Mental Health Insurance and where the patients pay out of their own pockets, ECT may be sought as a treatment over prolonging pharmacological management [2].

Discovery of ECT

The discovery of ECT goes back to the 1930s, where ECT was introduced and accepted as a better treatment for the treatment of severe psychiatric illnesses. ECT was earlier used unmodified, without anesthesia and muscle relaxants. First used by Italian professionals, Ugo Cerletti and Lucio Bini (1938), ECT has evolved over time to now being administered under anesthesia and with succinylcholine (or its equivalent) modification which is referred to as 'modified ECT'. Surveys indicate that there is considerable practice of unmodified (use of ECT without anesthesia/muscle relaxants) in developing countries and, to a small extent, in the developed world. The myths surrounding electroconvulsive therapy and the misconceptions held by the general public, clinicians and patients have interfered with acceptance of this treatment throughout its history [3].

Certain important clarifications about ECT

- Several documented evidences tell us that the use of ECT was as a means of controlling violent patients and maintaining order in wards. However, it must also be noted that the incident was abuse and misuse of ECT discontinued after the deinstitutionalization movement (Deinstitutionalization movement was a response in rebellion to the institutionalization in which patients would be hospitalized/institutionalized for treatment. It was found that treatment was barbaric and not conducive to patient improvement. The advent of medication also led to Outpatient treatment which was earlier not available. The number of ECTs being given drastically reduced with the rapid advances in psychopharmacotherapy. However, ECT continues to be a widely used treatment algorithm; ECT is also coupled with measures of psychopharmacotherapy and psychotherapy [4].
- The administration of ECT was dangerous as it was administered without the use of anesthesia and muscle relaxants. However, the improvisation of ECT coming as modified ECT as a treatment modality, various flaws have now been mitigated, making it not only safe but also useful and effective. ECT administration is now no more unmodified as per

protocol mentioned in the Mental Health Care Act of India. However, what is clinically prudent to note is that unmodified EC given appropriately can sometimes be safer than modified ECT [5].

- Unrealistic and exaggerated representation of ECT in media, print and the internet, created mammoth myths around ECT and the remnants of the same are still encountered. Media is a medium of the masses, consumed by millions in various fonts. Representation of ECT in Bollywood and Hollywood films has contributed to an amassed stigma towards ECT and a misnomer about it being a 'dangerous' treatment method. Cinema has wrongly portrayed the use of ECT, being used to cripple the patient and barbaric use of repeated ECT to make a patient amnesic which has developed aversion to an important treatment modality in the general community. The use of terms like 'shock therapy' and 'electric current therapy' in itself is extremely stigmatic to the treatment approach and bereft many from benefitting outcomes of ECT [6].
- Misleading public opinion that is not based on comprehensive medical / psychiatric knowledge and understanding creates a buff of mythical understanding. For example- people generally think of ECT being shown as in cinema, which is unmodified ECT and not the case in real-practice, terms like 'shock therapy' in itself create a distance from the treatment modality, people who have known someone undertaken ECT do not realise that some symptoms like blurred memory and speech are temporary symptoms and come back to normal [7].
- The anti-psychiatry movement propagated by Thomas Szasz and colleagues in the 1960s was so severe that the foundational existence of the concept of mental illness was questioned which furthered the disbelief in use of ECT [8].
- Difference in opinion among psychiatrists as a fraternity has also been a contributing factor to lead to ambivalence regarding the use of ECT. The postgraduate courses and trainings may have difference in preference to ECT as a treatment modality based on what does the Head of Department prefer. There are some psychiatrists and hospitals that unhesitatingly believe in the efficacy in ECT treatment.

ECT is a safe treatment

After decades of clinical experiences and research, protocols for safe treatment of patients regardless of their medical status, age and physical state has been warranted and developed successfully. However, despite these improved techniques and practices of ECT, the mechanisms contributing to the effects of ECT are still under investigation and ECT as a treatment has been widely underutilized [9].

ECT's effectiveness in treating severe mental illnesses is recognized by various professionally oriented practitioners and ethically permitted by the medical boards globally. Extensive research has found ECT to be highly effective for the relief of major depression, episodic /acute / atypical schizophrenia (not chronic), bipolar disorder and various other severe mental illnesses. Clinical evidence indicates that for individuals with uncomplicated, but severe mental illnesses, the efficacy of ECT stands between 50%-70%. ECT is sometimes used in treating individuals with catatonia and is also used when the patient presents with active suicidal tendencies and no other modality befits in the shorter frame of time. There are other indications for use of ECT as well such as delirium, acute psychosis, obsessive compulsive disorder and some medical conditions as well [10].

Brief Pulse ECT

The advent and rapid growth of the medical revolution in the 1960s led to the introduction of efficacious psychopharmacological treatment for depression, especially tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs) and this consequently led to the decline in use of ECT. Another potential factor that degraded the use of ECT was public reaction reported as cognitive (i.e., memory) side effects, physical discomfort, and the implications of social control associated with the treatment. A notable development is that the recent 'brief pulse ECT' and 'ultra-brief pulse ECT' do not cause cognitive changes like the sine wave ECT which was used

previously. However, with the widespread use of psychopharmacological agents as the first line treatment, there was also a realization that medications were not always found effective for treatment and this led to an increased use of ECT with patients resistant to those treatments [11].

ECT and The Mental Health Care Act in India

Contextually, in the Indian framework, the use of ECT has also been a debatable issue with not being a recommended modality of treatment. Till now there was no prohibition in administration of unmodified ECT in patients of different age group for various psychiatric conditions as per the clinical indication. But now as per the Mental Health Care Act (MHCA), in Section 95 (1)(a) of MHCA, "use of electroconvulsive therapy without the use of muscle relaxants and anesthesia" is a prohibited procedure. According to MHCA, unmodified ECT cannot be administered in patients of any age group. This may neglect the efficacy of unmodified ECT being given which can be beneficial over modified ECT if given with clinical prudence. The act emphasizes patient consent apart from family consent. ECT is usually given three times a week and the usual course is six to eight treatments, though some may require more.

Patient consent (and family consent) for ECT does not always translate into an affirmative one towards ECT given the strong myths about ECT that the patient (and family) may harbor or sheer ignorance of the benefits of ECT- this may defer the essential treatment benefits that the patient may require. In specific times, ECT may be a life-saving treatment that may be consciously denied with non-consent to ECT by the patient or family.

Section 95 (1)(b) of MHCA states that "electroconvulsive therapy for minors" is a prohibited procedure, except in situations, when the treating psychiatrist feels the need to used ECT. Section 95 (2) states that "Not-withstanding anything contained in sub-section (1), if, in the opinion of psychiatrist in charge of a minor's treatment, electro-convulsive therapy is required, then, such treatment shall be done with the informed consent of the guardian and prior permission of the concerned Board". Accordingly, if the treating psychiatrist feels the need to used ECT, then, such treatment shall be done with the informed consent of the guardian and prior permission of the Mental Health Review Board (MHRB) [12].

What becomes questionable in such a situation is two things- (1) ECT can be an equally effective a treatment for minors and (2) whether the MHRB is qualified and equipped enough to make this decision- since the board has only one psychiatrist. The availability of the MHRB is also questionable which may be held to question in cases of emergency. It is also important to remember that, as per the section, 94 of MHCA, ECT cannot be given as part of the emergency treatment. The section 94 (3) of MHCA states that "Nothing in this section shall allow any medical officer or psychiatrist to use electroconvulsive therapy as a form of treatment" [13].

A major advantage of using ECT in emergency situations is that it can be live saving which under this section of law may be not available to the patient (and family). The professional and ethical challenge in such a situation is that informed consent that comes through advance directives in the MHCA may be made by the patient who does not understand treatment modalities, may be unaware of the benefits of the treatment and may be warped with stigma [14].

ECT and Pregnancy – critical aspects

Psychiatric disorders are common during pregnancy, affecting 15-29% women. Untreated mental health disorders have negative health consequences for mother and foetus. Electroconvulsive therapy is an effective option for the treatment of severe depression, high suicide risk, catatonia, medication-resistant illness, psychotic agitation, severe physical decline, and other life-threatening conditions even in mothers during pregnancy. The safety and efficacy of ECT in pregnancy has been documented over the five decades. The most common risk to the mother is premature contractions and preterm labor, which occur infrequently and have clearly shown not be caused by ECT. The rates of miscarriages were not significantly different from that of the general population. There have been no associations of ECT with congenital anomalies, either morphologic or behavioral and no neurocognitive disturbances in the child. ECT is a reasonably safe and effective treatment alternative for management of many psychiatric disorders in pregnant patients [15].

ECT in the elderly

ECT has been used in various psychiatric conditions in the elderly. Comorbid medical conditions and cognitive deficits have been the prime concerns for indication of ECT in the geriatric population. The efficacy of ECT has been found in patients with Parkinson's disease and dementia. Pre-ECT evaluation and cognitive evaluation prior and during ECT are inevitable, especially so in this population and so is the determination of right technique, dose, frequency, and assessment of side effects. Owing to risk of cognitive side effects, right unilateral ECT is preferred. In carefully selected indications, ECT may be a superior management modality than pharmacotherapy among the elderly as well [16].

Critical Points for the Future

As any other treatment modality, ECT also comes with its advantages and disadvantages. Electroconvulsive therapy (ECT) is one of the treatment modalities in psychiatry that has stood the test of time for years. Additional research is needed in order to gain a better insight into the basic mechanisms which ECT operates on in order to have therapeutic effects. Critics in the media and medical profession have portrayed ECT as a form of medical abuse. Yet many psychiatrists, and more importantly, patients, consider it to be safe and effective. Electroconvulsive therapy (ECT) is an important treatment in psychiatry; despite the myth that it is a barbaric and outdated practice, it is as relevant today as it was over six decades ago, when it was first introduced [17].

There is need for uniform guidelines and standardized measures when it comes to the use of ECT in patients. These guidelines must be followed by private nursing homes and government hospitals alike and there must also be guidelines for informed consent in ECT from both patients and relatives. This will standardize the procedures in relation to ECT and bring about uniform dissemination of the treatment along with sound psycho-education and reduction of stigma.

REFERENCES

1. Payne NA, Prudic J. Electroconvulsive therapy Part I: a perspective on the evolution and current practice of ECT. J Psychiatr Pract 2009;15(5):346-68.
2. Andrade C, Agarwal AK, Reddy MV. The practice of ECT in India: II. The practical administration of ECT. Indian J Psychiatry 1993;35(2):81-9.
3. Trivedi JK. Practice of ECT in India. Indian J Psychiatry 2002;44(4):313-4.
4. Shorter E. History of psychiatry. Curr Opin Psychiatry 2008;21(6):593-7.
5. Andrade C. Unmodified ECT: ethical issues. Issues Med Ethics 2003;11(1):9-10.
6. McDonald A, Walter G. The portrayal of ECT in American movies. J ECT 2001;17(4):264-74.
7. Fink M. Prejudice against ECT: Competition with psychological philosophies as a contribution to its stigma. J ECT 1997;13(4):253-65.
8. Stefanazzi M. Is electroconvulsive therapy (ECT) ever ethically justified? If so, under what circumstances. HEC Forum 2013;25(1):79-94.
9. Kalinowsky LB. ECT: underused and misunderstood. Psychiatr Serv 1982;33(6):425-8.
10. Chanpattana W, Kunigiri G, Kramer BA, Gangadhar BN. Survey of the practice of electroconvulsive therapy in teaching hospitals in India. J ECT 2005;21(2):100-4.
11. Loo CK, Schweitzer I, Pratt C. Recent advances in optimizing electroconvulsive therapy. Austr NZ J of Psychiatry 2006;40(8):632-8.
12. Narayan CL, Shekhar S. The mental health care bill 2013: A critical appraisal. Indian J Psychol Med 2015;37(2):215-9.
13. Grover S, Avasthi A, Gautam S. Inpatient care and use of electroconvulsive therapy in children and adolescents: Aligning with mental health care act, 2017. Indian J Psychiatry 2019;61(Suppl 2):155-7.
14. Kar SK, Tiwari R. Impact of Mental Health Care Bill on caregivers of mentally ill: Boon or bane. Asian J Psychiatry 2014;12:3-6.
15. Ward HB, Fromson JA, Cooper JJ, De Oliveira G, Almeida M. Recommendations for the use of ECT in pregnancy: literature review and proposed clinical protocol. Arch Wom Ment Health 2018;21(6):715-22.
16. Grover S, Somaiya M. Electroconvulsive therapy in the elderly. J Geriatr Ment Health 2017;4(2):74-81.

17. Andrade C, Shah N, Tharyan P, Reddy MS, Thirunavukarasu M, Kallivayalil RA, Nagpal R, Bohra NK, Sharma A, Mohandas E. Position statement and guidelines on unmodified electroconvulsive therapy. Indian J Psychiatry 2012;54(2):119-33.

****

Acknowledgements – Nil
Source of Funding – Nil
Conflict of Interest – Nil