

PATTERN OF USE OF ELECTRO-CONVULSIVE THERAPY IN CLINICAL PRACTICE OF PSYCHIATRISTS

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ABSTRACT

OBJECTIVE

OBJECTIVE: To determine the patterns of use of Electro-convulsive therapy (ECT) in clinical practice of Psychiatrists in Pakistan.

STUDY DESIGN

Survey Research Design

PLACE OF DURATION OF STUDY

Study was conducted at Department of Psychiatry Abbasi Shaheed Hospital, Karachi Medical & Dental College from 01-07-2012 to 31-10-2012.

SUBJECTS AND METHOD

136 psychiatrists participated in the study. An online survey was carried out using a 14 item questionnaire, prepared at department of Psychiatry Karachi Medical & Dental College. The Questionnaire covered different aspects of use of ECT like its indications, methods of administration, complications, contraindications, efficacy, frequency of use and pre ECT counseling. This Questionnaire was sent by e-mails to psychiatrists practicing in different parts of the country. Psychiatrists of all ages and both genders, practicing for at least two years, were involved in the survey.

RESULTS

Almost 60 % of the psychiatrists responded and sent back their responses by e-mail. The results of survey indicated that ECT is used frequently by Psychiatrists in their clinical Practice and most of them are aware of proper indications, methodology, expected complications and importance of pre ECT counseling.

CONCLUSION

Electro-convulsive treatment is still a popular therapeutic approach and most of the psychiatrists use ECT, following recommended guidelines, ethical values and safety protocol for patients requiring ETC.

KEY WORDS

Electro-convulsive Therapy, Clinical Practices, Psychiatrists, Pattern

INTRODUCTION

Although electroconvulsive therapy (ECT) is an effective, and widely practiced therapeutic tool in the field of psychiatry, it has also been one of the debatable and poorly understood procedures as well¹. Since it was introduced in 1938 by Carletti and Bini², it is used as an effective therapeutic tool by psychiatrists in their clinical practice. It is reported that, every year, about one million patients are administered ECT all over the world³. ECT is considered to be a widely available treatment option for psychiatric disorders and is frequently used by clinicians, globally⁴. Despite the availability of recommended American Psychiatric Association 2001 & Royal college of Psychiatrists 2005 guidelines for use of ECT, large variations in practice of ECT is reported worldwide⁵. It seems that opinion of psychiatrists also differs on important issues related to Electroconvulsive therapy like its method of administration, indications, complications and efficacy in different clinical diagnoses⁶. Different studies were conducted internationally, aimed to know the patterns of use of ECT by psychiatrists in their practice. Questionnaire based national surveys were conducted in Japan⁷ and in UK⁸ for the same purpose. A similar survey was carried out on patterns of clinical practices of ECT in Denmark⁹ in 1999.

Few studies are also conducted related to Electroconvulsive therapy practices in local perspectives. Use of ECT at a university hospital in Karachi demonstrate its efficacy in developing country like Pakistan and also mentions the practices by psychiatrists of this area in administering ECT¹⁰.

Uniformity in patterns of use of ECT by professionals, in the light of recommended guidelines, is important to get the required results in terms of efficacy and safety. Uniform approach can be agreed upon by knowing the existing practices of ECT application by the clinicians. Keeping this context in mind, the objective of our study was to determine the pattern of use of ECT by the practicing psychiatrists in the country.

SUBJECTS AND METHODS

Participants

A questionnaire was mailed to 224 Psychiatrists throughout the

country. Sampling was done through emails as mentioned in the directory of Pakistan Psychiatric Society. Inclusion criteria related that psychiatrists belonged to both genders and were those who were qualified (having postgraduate qualification in psychiatry) and were practicing as psychiatrist at their respective places. Exclusion criteria was defined as psychiatrists who refused to participate in study or were not qualified in psychiatry were excluded from study. Those who were qualified but were not practicing psychiatry were also excluded from the study.

Instruments

A 14 item questionnaire was prepared by the principal investigator and five other practicing Psychiatrists from the departments of psychiatry of different teaching institutions of the city. To standardize and validate this questionnaire, it was sent to different faculty members of the teaching hospitals of the city and the opinions/responses obtained from them were discussed and consequently certain modifications were made in a few questions and related response options. The demographic variables like age, gender, city of residence, working place and clinical experience of the participants were also recorded by using a Performa designed for this purpose. The questionnaire consisted of 14 questions and the participants were required to choose one out of five responses of each question. It measured the various issues that were pertinent to use of ECT and covered different aspects of its use like its indications, methods of administration, complications, contraindications, efficacy, frequency of use and pre ECT counseling. To facilitate the responders, the questionnaire was sent online (by e-mail) to psychiatrists all over the country.

Procedure

The study protocol was approved by the Ethical Review Committee (ERC) of Karachi Medical & Dental College. Informed consent was taken from Psychiatrists before the study. Their personal information (name, residence and place of work) was not recorded to maintain anonymity and confidentiality. The data was analyzed using the SPSS statistical package, Version 17. Descriptive statistics were employed to determine the demographic and clinical variables.

RESULTS

224 psychiatrists were sent the questionnaire. Out of 224 only n=136 (60.7%) responses were obtained by e mail and were included in the study.

Majority of the psychiatrists were male (86%). 68.4 % of the psychiatrists were aged less than 50 years while 31.6 % were aged 50 or more than 50 years. majority of them were practicing psychiatry for more than 15 years i e 76.5 % (35.3 % practicing psychiatry for 15 to 20 years and 41.2 practicing for more than 20 years), see table 1 for details.

69.1 % psychiatrists responded that they frequently use ECT in their practice. 77.9% gave more than 5 ECTs in therapeutic sessions. 78.6 % of the ECTs were reported to be given for mood disorders (65.4 % for depression and 13.2 % for mania). The most common side effect was reported as memory impairment (47.8 %) and confusion (30.1 %) as reported by psychiatrists. psychiatrists reported skeletal problems

(41.9 %) and intracranial pathology (37.5%) as most common contraindications of ECT (see table 2 for details).

64.7 % psychiatrists reported the practice of ECT in operation theater under general anesthesia. 85.3 % reported that they always take informed consent. in physical examination before ECT, 40.4 % psychiatrists reported to conduct fundoscopy. 49.3 % conducted investigations for general anesthesia before giving ECT (see table 3 for details). Majority of psychiatrists reported ECT as potential treatment option giving considerable treatment out comes (see figure 1 & 2).

Table 1
Characteristics Of Psychiatrists (N=136)

	N	%
Gender		
Male	117	86.0
Female	19	14.0
Age (years)		
< 50	93	68.4
≥ 50	43	31.6
Years of Psychiatric Practices		
< 5	7	05.1
5 – 10	9	06.6
10 – 15	16	11.8
15 – 20	48	35.3
>20	56	41.2

Table 2
Indications, Complications and Contraindications in use of ECT

	N	%
How often you use ECT in clinical Practices?		
Rarely	42	30.9
Frequently	94	69.1
Frequency of ECT performed in Therapeutic session		
≤5	30	22.1
>5	106	77.9
Common Indications to use of ECT		
Depression	89	65.4
Mania	18	13.2
Post-Partum psychosis	08	05.9
Schizophrenia	16	11.8
Other Indications	05	03.7
Common Side effects		
Back ache	16	11.8
Confusion	41	30.1
Fracture/Dislocation	06	04.4

Table 3
Ethical Practices of ECT

	N	%
Procedures used for giving ECT		
Direct un-modified	07	05.1
In Operation Theatre with General Anesthesia	88	64.7
In ward with Thiopentone	41	30.1
Informed Consent taken before ECT		
Mostly	20	14.7
Always	116	85.3
Physical Examination before giving ECT		
None	15	11
Fundoscopy	55	40.4
General examination	34	25
Nervous system	14	10.3
Skeletal exam	18	13.2
Investigations advised before giving ECT		
None	11	08.1
ECG	07	05.1
MRI Brain	44	32.4
X-ray Skull	07	05.1
Investigations for General Anesthesia	67	49.3
Modification of Dose before ECT		
Yes	130	95.6
No	06	04.4
Drugs Modified		
Anticonvulsants	61	44.9
Antidepressants	06	04.4
Benzodiazepines	28	20.6
Lithium	41	30.1

Figure 1
Effectiveness of ECT as treatment option as reoprted by psychiatrists

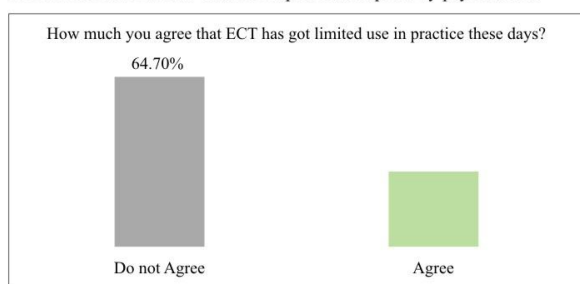
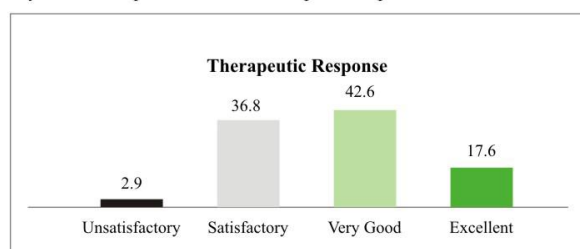


Figure 2
Psychiatrists responses on ECT's therapeutic response



DISCUSSION

ECT has been used as a treatment option by many practicing psychiatrists in Pakistan. The response rate of the mailed questionnaires in our study was 60% which is far better than study conducted in India¹¹ where only 28.8% responded, as compared with 90% responders to similar study in developed country¹². This may be due to the use of a better option of email in methodology which is easy to communicate with little or no additional cost involved. With the advancement in psychopharmacology from 1950s onwards the use of ECT has been declined in many countries of the world. In our study it was encouraging that majority showed positive attitude towards its use in their practice especially in younger aged psychiatrists. This may be due to better awareness, safe and improved facilities available now at healthcare facilities. A favorable response was shown in a similar study conducted in India¹³.

Our study finding in gender difference is 1: 6 female to male. This is quite different from study conducted in Indian institutes where it was found to be 1 to 1.56¹⁴.

The pattern of use of ECT in clinical practice was different in different parts of Pakistan. Similar reports are documented in studies conducted in different countries¹⁵ including Saudi Arabia¹⁶.

Our results showed that about 2/3rd patients required more than 5 therapeutic sessions for ECT to be effective. In almost all studies conducted in different countries showed similar pattern^{10,17,18}.

Mood disorder including Depression was found to be the most common indication and was followed by mania, schizophrenia, and other condition including postpartum psychosis. This finding was in accordance with recommendation given in American Psychiatric Association 2001 guidelines. This aspect of result was also found in other studies¹⁹ that ECT is used as first line treatment of major depression. Similarly ECT has been used for treatment of schizophrenia in other countries as reported by Zerves et al in their study²⁰. In the study by G Gazdag et al, schizophrenia was found to be the most common indication for ECT in Hungary during 2002²¹. ECT in treatment resistant depression and Schizophrenia is still used as an effective treatment by psychiatrists in different countries as it was found in our study. Above 90% participants in our study agreed that it is an effective method for treatment for psychiatric disorders. This finding suggests the confidence of practicing psychiatrists in this therapeutic approach.

As in our study ECT is administered mostly involuntarily but with guardian's consent. In Asia, written informed consent is mainly obtained directly or counter signed by family members²². The modified ECT was preferred method of choice with prior physical examination done and investigations like ECG MRI-Brain and X-ray chest were performed before administration as recommended by guidelines. Further majority of Psychiatrist modified the already prescribed drugs to patient prior to ECT as indicated in update of royal college of Psychiatrist.

Side effects profile in our study differed from study conducted in 14 Asian countries where unmodified ECT was used in 50% of patients²². Finding in our study shows that in more than 90% cases anesthesia is used. In the study conducted in Japan Ishimoto Y et al¹³, 37% showed

adverse effects of memory impairment and confusion which were predominantly seen in our study.

LIMITATIONS OF STUDY

Limitations of this study is lesser number of participants as opinion of a larger sample size would reflect the current practices and trends of majority. Hospital based studies at different centers with higher number of participants should be carried out to get a wider opinion in this regard.

CONCLUSION

ECT is an effective treatment in Psychiatric practice and most of the psychiatrists are following recommended guidelines for use of ECT, keeping in mind the ethical values and safety protocol for patients requiring ECT. A guideline to administer ECT in local perspective is however needs to be developed so that a uniform approach can be adopted in clinical practice by psychiatrists.




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