Original Article

Electroconvulsive Therapy: Attitudes and Practice of Iraqi Psychiatrists

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Summary:

Background: Although Electroconvulsive Therapy (ECT) is still regarded as a controversial treatment by some people, it is an important and effective treatment. The practice of ECT is different across the world.
Objectives: to obtain an overview of the electroconvulsive therapy practice in Iraq.
Method: Forty item self administered questionnaire about the attitude and practice of ECT, was sent (by mail or delivered by the researcher) to 73 Iraqi psychiatrists during the period from March to September, 2007.
Results: Half of participants had asked for the patient's consent, and all asked the family for the consent, 72% had asked for written consent and 28% for oral consent only. Majority (81%) gave oral information to patient's family before ECT while 36% gave oral information to patients .
Average number of ECTs administered per patient were six, 61% perform ECT thrice weekly while 39% twice weekly. Maintenance ECT was used by 16% of participants. Bilateral ECT is exclusively used in Iraq and 74% perform unmodified ECT. Vast majority of the participants (85%) believed in application of ECT as a strongly effective treatment. The majority 79% never stop medications before ECT. Forty eight percent did routine investigations before ECT performance, The main complications associated with ECT were; amnesia (57%) headache (54%), and nine deaths were reported during the practice of the 65 psychiatrists. The main indications for ECT were depression (31%), schizophrenia (26%) , mania (21%) and schizoaffective(16%). Many absolute contraindication mentioned by Iraqi psychiatrists , increased intracranial pressure(79%) , space occupying lesions(74%), Myocardial infarction (64%), aortic aneurysm (56%) and below 15 years of age (41%)
Conclusion: Iraqi psychiatrists practice of ECT is a mixture of different international experiences .A legislation and a code of practice for the use of ECT is mandatory .

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Introduction:

Electroconvulsive therapy (ECT) is regarded as a controversial treatment by many people (1,2) . The clinical literature establishing the safety and efficacy of electroconvulsive therapy (ECT) in specific disorders is substantial (3) . Although appropriate rates for its use are difficult to estimate, ECT's popularity waxes and wanes, and some suggest that it is underused, particularly in state hospitals and economically disadvantaged populations (4,5) .This underuse may, in part, be related to inadequate education of physicians and continuing controversies about ECT. Underuse also may be attributable to inadequate training. While ECT is an important and effective treatment for certain psychiatric disorders, its use is highly variable(6,7) .Some psychiatrists' characteristics may contribute to this variability. Gender, training characteristics, and clinical orientation affect psychiatrists' use of ECT(8) .

Today utilization rates, practice, and ECT parameters vary greatly throughout continents and countries, Large global variation in ECT utilization, administration, and practice advocates a need for worldwide sharing of knowledge about ECT, reflection, and learning from each other's experiences(9) .

In Iraq; the use of ECT varies between different psychiatrists and different hospitals. It may be overused in some places and underused in others. The indications for ECT may vary too. During the 1990s, when Iraq was under international sanctions, there was a considerable shortage of medicines and hence the use of ECT was increased. After 2003,the sanctions were decreased and the supply of medicines had improved considerably , a situation which might also been reflected on the use of ECT. The number of qualified psychiatrists in Iraq is very low, there were 91 psychiatrists , 64 work in outpatient facilities, 9 in community based psychiatric inpatient unit and 18 in psychiatric hospital (10), and most of them are trained in Iraq following the British and American schools of psychiatry and hence they are following the same guidelines. The studies about the use of ECT in Iraq are very scarce, and only one previous study was found which was done in 1992 on patients treated by ECT (11). This study aims to throw light on the practice and the attitudes of psychiatrists toward ECT in Iraq .

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Patients and methods:

A 40 – item self administered questionnaire was designed to gather the attitude and practice of Iraqi psychiatrists toward ECT. The questionnaire was adopted from Benbow et al (12) and Pipppared and Ellam(13) in one question the respondents were asked to rate (often , sometime, rarely or never) for appropriateness of ECT to a number of psychiatric conditions. The rating used the same method as Pipered & Ellam and Benbow et al(11,12) . The responses were treated as if they were an arithmetic series, assigning +2 to often ; +1 to sometime ; -1 to rarely and -2 to never, and zero was given to any undecided response .

The questionnaire contains questions about :

1- Training, place and duration of practice of the psychiatrist.

2- Consent and explanation of the procedure to the patient and family.

3- Investigations done before doing ECT.

4- Performance ,

5 - Indications and contraindications .

6. Complications noticed through the use of ECT.

7. The use of guidelines

The consent of the participants was asked through a covering letter with the questionnaire. The questionnaire was either delivered to the participants by hand or sent by mail.

The questionnaire was sent to 73psychiatrists working inside Iraq during the period between March and September, 2007 which forms 80% of the total number of Iraqi psychiatrists in this year. Six psychiatrists (9%) are working in private sector exclusively, while 91% are working in both governmental and private sectors, 68 psychiatrists responded to questionnaire, 3 of them never answered any item so they were excluded from the study. The total number of psychiatrists included in the study was 65, from them there is only one female psychiatrist and the response rate was 89% . the respondents represent 71% of Iraqi psychiatrists.

The data was subjected to analysis by using descriptive statistics and tabulation.

Results:

The respondents mean age was 50.4+ 9 years, the mean duration of practicing medicine was 26¬+9 years , and the mean duration of practicing psychiatry was 14¬+ 10 years . Four of respondents were practitioner psychiatrists, who had psychiatric training without academic certificate, 61 are qualified psychiatrists. The majority were trained in Iraq 48 (74%), 10 in UK (16%), 6in Egypt (10%) and one in Germany 2%. Forty four psychiatrists (68%) give ECT by themselves while 21 (32%) refer patients to other psychiatrists.

Half of participants(51%) had asked for the patient's consent , others might asked and 3 never asked the patient , but all psychiatrists had considered the patient's family consent as mandatory before ECT , 72% had asked for written consent and 28% for oral consent only . Majority (81%) gave oral information to patient's family about ECT before performing it, 18% sometimes and one never gave information , while 36% gave oral information to patients about ECT before the treatment , 55% sometimes and 9% never gave information. No written information was given to patients or their families. Average number of ECTs administered per patient were six. Sixty one percent perform ECT thrice weekly while 39% twice weekly. Maintenance ECT was used by 16% of participants. Bilateral ECT is exclusively used in Iraq. Seventy four percent perform unmodified ECT, 11% of psychiatrists perform ECT in private clinics while 61% in governmental hospital, 25% in both. Vast majority of the participants (85%) believed in ECT as a strongly effective treatment and 15% were generally in favor of its use, but 15% of them refuse to give ECT for a family member and 13% have no decision.

The majority 79% never stop medications before ECT, while 21% stop medications. The medications to be stopped were benzodiazepine 38% , anticonvulsants 46% , antidepressants 23% and antipsychotics 15%.

Forty eight percent did routine investigations before ECT performance, 8% never, and 44% did it for some patients.

Routine investigations before ECT were reported as follows: Urea &electrolyte 27% , blood sugar 43% , complete blood picture (CBP) 25%,electrocardiogram (ECG) 75%, chest x-rays(CXR) 73%, brain CT scan 27% .

Nine deaths were reported during the practice of the 65 psychiatrists.

The main complications associated with ECT were; Amnesia (57%) headache (54%), muscle pain (38%) and confusion (26%) Table (3). Indications and contraindications are shown in tables (1) and (2).

Table (1): Indications of ECT, compared with results from New Zealand 2001 and UK 1995,1991, 1980 (16)

Mental Disorder	Iraqi study		New Zealand 2001	UK 1995	UK 1991	UK 1980
	%	Rating				
Depression	(31%)	1.65	1.4	1.6	1.6	1.7
Schizophrenia	(26%)	0.9	-1	-0.6	-1.2	0.1
Mania	(21%)	0.5	0.1	-0.2	-0.4	04
Schizo affective	(16%)	0.2	0.3	0.7	0.4	0.7
Epileptic disorders	(1.5%)	-1.1	-1.5	-1.6	-1.9	-1.5
Depression &dementia	(0.5%)	-1.9	-0.1	0.1	0.2	0.3
Delirium	(0.5%)	-1.9	-1.5	-1.9	-1.8	-1.5
Parkinson with psychiatric disorders	(1.5%)	-1.1)	-1.2	NA	NA	NA
Anorexia nervousa	(1.5%)	-1.5	-1.8	-1.8	NA	-1.4
Hypochondriasis	0	-2	-1.8	-1.4	-0.7	- 0.7
Personality disorder	(0.5)	-1.9	-1.9	-1.9	-1.9	-1.7
Substance abuse	0	-2	-1.9	-1.9	-2	-1.7

Table (2): Contraindications of ECT

Disease	Absolute		Relative		undecided		Not		Total
	No.	%	No.	%	No.	%	No.	%	
MI 6 months	41	64	15	23	5	7	4	5	65(100%)
Any MI	15	23	25	39	9	13	16	25	65(100%)
IHD	15	23	29	46	8	11	13	20	65(100%)
CVA	34	54	17	26	9	13	5	7	65(100%)
Pregnancy	8	11	25	39	5	7	27	43	65(100%)
ICP	49	79	10	14.5	2	1.5	4	5	65(100%)
SOL	46	74	11	16.5	5	7	3	3	65(100%)
Age more than 70	13	20	24	38	8	11	20	31	65(100%)
Age less 15	26	41	18	28	9	13	12	18	65(100%)
Epilepsy	15	23	23	36	5	7	22	34	65(100%)
HT	7	10	32	51	6	8	20	31	65(100%)
DM	3	5	23	36	5	7	34	52	65(100%)
Aortic Anyrism	35	56	15	23	10	15	5	7	65(100%)
OA	10	15	35	56	6	8	14	21	65(100%)

MI=myocardial infarction, IHD= ischemic heart disease , CVA= cardio vascular accident , ICP= increase intracranial pressure, SOL= space occupying lesion , HT = hypertension , DM= diabetes mellitus , OA= ostio arthritis.

Table (3) : Complications of ECT

Side effect	No.	%
Confusion	17	26
Headache	35	54
Amnesia	37	57
Muscle pain	25	38
dislocation	13	20
Fracture mandible	4	6
teeth Fracture	5	8
Fracture bone	8	12
Status epilepticus	1	1.5
Asphyxia	2	3
Sub-conjectival hemorrhage	2	3
Aggressive behavior	3	4

Discussion:

The trend of Iraqi psychiatrists is to ask the patient's family for consent and to give information to the family more often than to patients. This might be partly attributed to the Iraqi culture which gives the family the right to take decisions on behalf of its members. It might be also due to the absence of legal regulations of what to do when a patient is unable to give consent. NICE guidelines recommends that information leaflets should be developed to help people to make an informed decision.(14). The Royal College of Psychiatrists state that any potential ECT patients should be provided with information in writing before agreeing to receive ECT treatment (15) . Ninety percent of New Zealand psychiatrists , gave written information to the patients and 66% to the family (16) .

Sometimes, if a person doesn't have the capacity to give an informed consent and there is no family member, the team may decide that ECT can be given under the Mental Capacity Act (17) . It is necessary to amend the Iraqi mental health act (2005) to include ECT guidelines for informed consent as an essential step to encourage Iraqi psychiatrists to give a written information to the patients and their relatives The average of ECT number of treatments is different world wide , but the global average is eight (9) , while in Iraq is six. In USA overall seven to eight (18) , in Europe ranged from five in some studies (19) to eleven in another (20) , except Sweden where it was one to twenty two (21), in New Zealand and Australia ranged from seven to twelve (22, 23), in Africa from one in one study (24) to ten in another(25) and generally in Asia between six and eight (9). The practice of Iraqi psychiatrist is closely near Asian and the global average practice. Unmodified ECT (without anesthesia) was used (over 90%) in Asia (9) , in Africa (26) apart from Malawi , in which modified ECT used after 2007(25), Overall, 26% Latin American countries used unmodified ECT (27), except for Brazil(28) . In Europe, all parameter reports indicated modified ECT (29), except for Russia where more than 80% was unmodified (30) . All parameter reports in Australia and New Zealand indicated modified ECT(22,23) , similarly in the United States (18). Shortage of anesthetists' in Iraq is the main cause for using unmodified ECT. Preferred placement of electrodes worldwide (approximately 80%) is bilateral (9) as in Iraq which is exclusively bilateral and it may be due to professional training and beliefs concerning the efficacy of bilateral ECT. Only 16% of Iraqi psychiatrists used maintenance ECT , while 88% of New Zealand psychiatrists consider maintenance ECT favorably and 50% had used it(16) .Maintenance ECT was practiced in Texas (31) , and Australia (23) , rarely in Hong Kong (32) , while in India varied from 1–10% to 60% of patients (33) . Iraqi psychiatrists experience is closely similar to Asian psychiatrists. Attitudes of psychiatrists toward ECT were generally favorable in Europe(9) , in New Zealand 49% strongly advocate ECT and 45% are in favor and in Texas 93% felt the ECT should available to their patients and 92% they consider the use of ECT for themselves or a family member when its indicated(34) while most Iraqi psychiatrists believed in the efficacy of ECT 85% (16) and this could be explained to the professional experience especially in the era of 1990s to 2007 with economic sanctions , embargo and the occupation of Iraq in 2003 when there was a big deficiency in medications so most psychiatrists used ECT to compensate for this deficiency which increased their experience in this treatment and increased their trust in the efficacy of ECT. The practice in most of the departments in Norway was to discontinue some classes of psychotropic drugs before ECT, mostly benzodiazepines and anticonvulsants. Antidepressants and antipsychotics were most often continued (35) . In New Zealand 81% of psychiatrists stop benzodiazepine, 75% anticonvulsants and nearly 40% stop antidepressant and antipsychotics (16) . This practice was inconsistent with Iraqi practice where the majority (79%) continued the medication before ECT.

Majority of Iraqi psychiatrists did routine investigations before doing ECT and this is consistent with the Royal

College of Psychiatrists Guidelines (36) and the Royal College of Australia and New Zealand Guildelines (37) .

In USA the main indications were Affective disorders, unipolar/bipolar depression,(72–92%), while schizophrenia and/or schizoaffective disorders were much less indicated for ECT (8–29%) (18, 31, 38) . In Australia and New Zealand unipolar/bipolar depression was the main indication (16,23,39) . Although affective disorders (unipolar and/or bipolar depression were the most prominent in Europe(35,40,41), schizophrenia and/or schizoaffective disorder were major indications in Hungary 64%, Turkey 37% and Chuvash Republic 88% (29,42,43). In Africa, the main indications were schizophrenia and psychotic conditions (60–83%) (24,25,26) and in Asia the main indication was schizophrenia(33,44,45). However, in Saudi Arabia (46) ,Pakistan (47), and Hong Kong (48) , depressive illness was the main indication (over 60%). The Iraqi indications for ECT were resembling those of USA, Europe, Australia, New Zealand and Saudi Arabia. Iraqi psychiatrists consider ECT as an antidepressant in the first place then as an antipsychotic while in some European sites (Brussels and Wallonia in Belgium), ECT is regarded as an "antidepressant," since it is used exclusively for the treatment of depressive disorder (49) . In contrast, ECT in Asia it is regarded as an "antipsychotic" agent (33,44,45). The Royal College of Psychiatrists Guidelines proposed that there are no absolute contraindication to ECT(36) , while The Royal Australian and New Zealand College Guidelines nominate only increased intracranial pressure(37) . Nevertheless most respondents in this study indicated many illnesses to be absolute contraindications similar to Australian and New Zealand psychiatrists (16) and this may be due to the high percentage of unmodified ECT in Iraq which might made the psychiatrists more conservative. Most of side effects seen are similar to Indian experience that elicited fractures, dislocations, teeth injury (33) , this may be due to the use of unmodified ECT.

The Iraqi psychiatrists elicited nine deaths during their experience (mean was 14+10) while in Texas, in 1998 (31) , were eight deaths and in 2000, 25 deaths (50) and one death in one year in India(33). The cause for low percentage of deaths in Iraq may be due to a lot of absolute and relative contraindications .

Conclusions:

Iraqi psychiatrists practice of ECT is a mixture of different international experiences, being closer to the English and American practice but there are no clear guidelines about the use of this treatment . A legislation and a code of practice for the use of ECT is mandatory .

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