PAPERS AND ORIGINALS

Indications for electric convulsion therapy and its use by senior psychiatrists

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Summary and conclusions

A survey by questionnaire of all senior psychiatrists in the Wessex Region showed that they considered depressive psychosis to be the major indication for electric convulsion therapy (ECT). A good clinical response was thought to be predicted by the presence of psychomotor retardation, depressive delusions, depressed mood, early morning wakening, diurnal variation, loss of appetite, and agitation. ECT was judged to be extremely useful for treating mania and acute undifferentiated, catatonic, and paranoid schizophrenia; of some use in hypochondriasis; but of little value or contraindicated when there was severe, depersonalisation, or hysterical symptoms. Only 40% of the psychiatrists favoured unilateral ECT, and the variation in electrode placements used by different psychiatrists was surprising. Eighty per cent of the respondents used courses averaging six to eight treatments given over two or three weeks.

Results obtained in this study, based on clinical judgment, differed from research findings, which emphasises the need for further study of this important treatment.

Introduction

After 40 years of use and research electric convulsion therapy (ECT) remains controversial. The aim of this study was to discover what agreement exists among British psychiatrists about the place of ECT in modern practice and to compare the psychiatrists' views with those expressed elsewhere. The study

has assumed particular importance since the publication of the memorandum of the Royal College of Psychiatrists on the use of ECT,¹ which might be quoted as "the British opinion" but was based on a review of the literature and the opinions of only a few contributors.

Methods

We sent a questionnaire designed to elicit opinions about the indications for treatment with, and the usefulness of, ECT to all of the 54 consultants in adult general psychiatry in one administrative region. The questionnaire included a list of psychiatric diagnoses and target symptoms. Respondents were asked to rate their estimate of the value of ECT on a four-point scale, which was weighted as follows: very useful, +2; sometimes useful, +1; no use, -1; contraindicated, -2; missing data, 0. Views on treatment methods and the positioning of electrodes were also requested, consultants being asked to mark electrode positions on a diagram of the head viewed from the right.

Results

We received replies from 52 of the 54 consultants, a response rate of 96%. We also sent the questionnaire to 80 psychiatrists of other grades, but only 47 (59%) replied. Their views are, therefore, only briefly mentioned.

Referrals for ECT—Twenty-five consultants stated that they referred one to five patients for ECT in a month; 17 referred six to 10; and eight referred 11-20. Only one stated that he referred more than 20 a month, and one, a psychotherapist, said that he never used ECT.

Indications for ECT—Figures 1 and 2 show the mean scores for the usefulness of ECT in certain conditions or when certain symptoms and signs are present. The respondents also contributed 25 conditions that had not been listed in which ECT may be indicated. These included puerperal psychosis, acute psychotic general paralysis of the insane, and depression in senile dementia.

Memory impairment—A total of 15 consultants (37%) considered that temporary impairment of memory was invariably associated with clinically effective ECT (table I).

Bilateral versus unilateral ECT—Half of the respondents thought that bilateral was more effective than unilateral ECT (table I).

Who administers ECT?—Only 10 (19%) of the senior psychiatrists indicated that they personally administered ECT (table I).

Frequency of treatments—The optimum frequency of treatments for

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FIG 1—Bar chart showing mean scores attached by consultants to value of ECT when indicated by various conditions.

Very useful = +2; sometimes useful = +1; no use = -1; contraindicated = -2.

FIG 2—Bar chart showing mean scores attached by consultants to value of ECT when certain symptoms and signs present.

Very useful = +2; sometimes useful = +1; no use = -1; contraindicated = -2.

TABLE I—Response of consultants to questions about their opinions on ECT and whether they personally administered it

Question	No of responses		
	Yes	No	Missing data
Do you feel that temporary memory impairment is inevitably associated with the clinical efficacy of ECT?	19	33	
Is bilateral ECT more effective than unilateral ECT?	26	22	4
Do you personally administer ECT?	10	42	

TABLE II—Positioning of electrodes by consultants and psychiatrists of other grades in bilateral and unilateral ECT

	Consultants	Others
<i>Bilateral</i>		
Bitemporal	32	20
Bifrontal	8	6
Biparietal	1	5
No comment	11	36
<i>Unilateral</i>		
Temporoparietal	10	24
Frontoparietal	2	4
Temporofrontal	5	2
Occipitofrontal	5	2
Occipitotemporal	6	2
No comment	24	33

(fig 2), correspond broadly with research findings,⁵⁻⁹ although hypochondriasis, thought here to predict a good response (62%), is usually regarded as predicting a poor response.^{5 6 8 9} The positive predictive value of agitation seems to be a prescriber's rather than a researcher's view and was also reported in Klein's survey.⁴ There was broad agreement on the value of ECT for other indications but no view was unanimously held (fig 1). Its value in mania, hypomania, and depression secondary to schizophrenia was attested, and it was afforded a place in the treatment of catatonic and acute undifferentiated forms of schizophrenia. In other conditions opinions varied widely—for example, 11 consultants said that ECT is sometimes useful in dissociative hysteria, while 12 declared it to be of no use and 24 to be contraindicated.

Unilateral ECT applied to the non-dominant hemisphere has been shown by some workers¹ to be as effective as bilateral ECT and is said to offer a smaller chance of memory disturbance, a quicker and more comfortable recovery (from the procedure), and fewer disagreeable side effects.¹⁰ This might, therefore, be expected to be a favoured method, but in our survey half the consultants thought that bilateral was more effective than unilateral ECT and so presumably used this as the method of choice. ECT causes some temporary memory loss of events preceding treatment.¹¹⁻¹³ Some workers^{12 16} believe that amnesia is inevitably associated with the therapeutic efficacy of ECT. This view was shared by 19 consultants in our survey (table I). Miller¹¹ pointed out, however, that if unilateral ECT is as potent therapeutically as bilateral ECT and yet produces far less impairment of memory, then the latter itself is unlikely to be related to improvement.

The positioning of the electrode and amount of electrical energy used are said to be important factors for efficacy and the reduction of side effects.¹⁷⁻¹⁹ The temporoparietal placement has been advocated¹⁸⁻²⁰ because it requires the least quantity of electrical stimulation to produce a fit. Only 37% of the consultants and 71% of the junior staff chose this position. The consultants' opinion may be ignored since they rarely administer ECT themselves (only 19% said that they did so), and thus throughout the region surveyed possibly only about two-thirds of the unilateral ECT is given using the preferred temporoparietal position. Interestingly, the Royal College memorandum advised a mastoid-temporal (occipitotemporal) placement of electrodes, which was chosen by only 21% of the consultants and 6% of the juniors who responded to this question in our questionnaire. With temporo-mastoid electrodes the least

physically healthy adults was thought to be three times weekly by 23 consultants (44%), twice weekly by 22 (42%), two or three times weekly by five, and daily by one.

Optimum number of treatments—The optimum number of treatments varied between four and 12, 40 consultants (77%) indicating six to eight as their choice.

Positioning of electrodes—Only 28 (54%) of the consultants fully answered this question. Of these, 32 (78%) used a bitemporal position for bilateral ECT and 10 (36%) a temporoparietal position for unilateral ECT (table II).

Discussion

In this study we obtained a response rate of 96%, the highest so far produced in a survey of this type.²⁻⁴ The opinions expressed do not fully support the Royal College of Psychiatrists' memorandum on ECT.¹ Fifty-one (98%) of the responding consultants said that they prescribed ECT and considered it to be an appropriate treatment in depressive psychosis. It was regarded as useful for depressive mood state (98% of respondents), psychomotor retardation (96%), depressive delusions (100%), early morning waking (92%), agitation (80%), and diurnal variation (90%) (figs 1 and 2). These factors, together with the symptoms thought to indicate no response to ECT

sensitive area of the cerebral cortex is being stimulated through the thickest part of the cranium, and to produce a fit more electrical energy is required.

Our findings highlight the differences and conflicts between clinical judgment and research findings and emphasise the need for more intensive research into the value of this important and widely used treatment. The views expressed differ from those in the memorandum of the Royal College of Psychiatrists.

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Campylobacter enteritis associated with consumption of unpasteurised milk

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Summary and conclusions

In October and November 1978 two outbreaks of enteritis occurred in the north of England. Symptoms lasted two to over eight days but in no case necessitated admission to hospital. Faecal specimens from most of the patients were found to contain thermophilic Campylobacter sp. Inquiry disclosed that all patients had consumed unpasteurised milk from local farms. Examination of rectal swabs from the cattle concerned and milk socks yielded strains of Campylobacter sp indistinguishable from those isolated from the patients. It was therefore concluded that, since campylobacters are not known to be excreted in milk, faecal contamination of the milk had probably occurred and had led to these outbreaks.

Evidence suggests that thermophilic Campylobacter sp is an occasional contaminant of milk. So long as unpasteurised milk continues to be distributed further outbreaks will probably occur.

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Introduction

In the past year two outbreaks of campylobacter enteritis have been described in which the circumstances suggested that milk was the vehicle of transmission.^{1 2} We report two further such outbreaks.

Cumbria outbreak

Between 10 and 20 October 1978, 63 people presented to general practitioners in Arnside and Milnthorpe (Cumbria) with symptoms mainly consisting of abdominal pain and diarrhoea. Fifty-seven of the patients lived in Arnside village; three in Storth, a village two miles (3 km) to the east; and three, all in one family, in Milnthorpe, a town some five miles further inland. All but one of the patients complained of diarrhoea, and 48 (76%) also had cramping abdominal pain. The faeces were watery, offensive, and did not contain visible blood. Eight patients (13%) also complained of headache, 6 (10%) of vomiting, and 4 (6%) of fever, and in one case there was a macular, erythematous rash. The symptoms lasted on average two to three days and were never severe enough to warrant admission to hospital. The patients were aged 8 months to 78 years, and no age group was predominant. The cases occurred in a single wave with onsets between 8 and 13 October (see table), and there was no evidence of secondary transmission within affected families.

Dates of onset of 63 cases in Cumbria outbreak

Date (October)	..	..	..	..	..	8	9	10	11	12	13
No of cases	..	..	..	..	..	5	15	22	11	9	1

INVESTIGATION

Thermophilic Campylobacter sp was isolated from the faeces of 38 of the 53 patients tested. No other pathogens were detected. Inquiries about the source of supply of food, water, and milk to all patients disclosed that all had regularly consumed unpasteurised milk obtained from a local farm. The farm had a milking herd of 85 cows producing