

A shocking treatment?

A PSYCHOLOGIST recently suggested that commenting on electroconvulsive therapy (ECT) was outside our arena of professional responsibility (Gelsthorpe, 1997). I disagree.

Although clinical psychologists do not prescribe ECT, those who work in adult mental health or with the elderly will inevitably be present at meetings in which ECT is suggested as an intervention, and may have patients who have been given it. ECT may be a factor in an assessment of memory or cognitive impairment. Physical treatments such as ECT convey important messages about the nature and causes of mental distress, which may contradict or undermine our psychological interventions. ECT may be a source of psychological trauma and distress in its own right. And, of course, any of us or our friends and relatives could one day be in the position of deciding whether to have ECT ourselves. We may also, after consideration of the evidence, feel that the administration of ECT involves ethical issues that transcend professional boundaries. For all these reasons, the use of ECT should be a matter of concern to all psychologists.

Still widely practised

Contrary to popular belief, ECT is still widely practised; it was given to approximately 11,340 patients in England in 1999, compared with a peak of around 28,000 in 1985 (Department of Health, 1999.) Of these, two thirds were women, 41 per cent were over 65, and 15 per cent



LUCY JOHNSTONE takes a look at a controversial therapy, still being used in the UK.

had ECT under section, or without consenting. It is rarely used in Italy, Japan, Germany, Slovenia, the Netherlands and Austria, and is used much less in many other European countries than in the UK.

A course of ECT consists of four to twelve individual treatments in which an electric current is passed through an anaesthetised patient's brain, triggering an epileptic seizure (Royal College of Psychiatrists, 1995). ECT was introduced in the 1930s on the basis of an inaccurate belief that epilepsy and schizophrenia were incompatible conditions, and therefore, by a form of backward logic, inducing a seizure might cure psychosis. Ugo Cerletti, the Italian psychiatrist who is credited with the invention of ECT, gave a chilling account of the very first administration to a tramp, who broke out of his habitual incoherence to beg 'Not another one! It's murder!' (Frank, 1978). Before muscle relaxants were used, fractured ribs and limbs were common.

Current psychiatric opinion is represented by the Royal College of Psychiatrist's *ECT Handbook* (1995), which states that 'ECT... is an effective treatment in severe depressive illness' and occasionally also in other conditions such as psychosis and mania. In contrast, organisations like ECT Anonymous, along with many service users, have campaigned for the abandonment of an intervention that they describe as 'barbaric and destructive' (Lawson, 1992).

Underlying principles

The use of physical interventions in mental distress is justified, at least partly, by the assumption that mental illnesses have some biological (biochemical or genetic) causal

mechanisms. The great majority of ECT research, including the recent health technology appraisal of ECT commissioned by NICE (see weblinks), is situated firmly within this biomedical paradigm. But while it is obviously true that all emotional and psychological states have their physiological correlates, it is important to be clear that no hard evidence for primary causal factors in depression has ever been reliably identified. As David Healy has written, 'there is no known lowering of serotonin in depression' (Healy, 1998, p.8).

It is also important to note that no

WEBLINKS

Information about ECT: www.ect.org

Neurologist John Friedberg:

www.idiom.com/~drjohn

Dr Carl Littlejohns, Consultant Psychiatrist, West Cheshire Hospital:

www.priory.com/psych/ectol.htm

Friends against psychiatry: www.banshock.org

NICE appraisal of electroconvulsive therapy:

www.nice.org.uk/pdf/FAD_ECT.pdf

biological mechanisms for the action of ECT have been reliably established, although many have been proposed. Richard Abrams, author of the standard textbook *Electroconvulsive Therapy*, sums up the situation:

Modern ECT researchers...do not have any more of a clue to the relationship between brain biological events and treatment response in ECT than they did at the time of the first edition of this book – which is to say, none at all. (Abrams, 1997, p.268)

This means that statements such as that found in the Royal College of Psychiatrists (1997) factsheet – ‘Repeated treatments alter chemical messages in the brain and bring them back to normal’ – are, to say the least, purely speculative, and highly misleading when presented to patients (or anyone else) as established facts. We should also be careful about the terms ‘works’ and ‘treatment’. By definition, ECT cannot be a cure if we have not established either the biology of depression or ECT’s mechanism of action. Nor can it be described in any specific sense as a ‘treatment’ for depression, or for any other form of mental distress.

The above considerations also make it especially important to take service-user reports into account, especially if they say (as about one third of them do) that ECT is

distressing to receive and has side-effects such as memory loss (Rogers *et al.*, 1993; United Kingdom Advocacy Network, 1996). Unlike the case of, for example, chemotherapy, which also has side-effects and is distressing to receive, ECT cannot be justified on the grounds that it is effective at an underlying biological level. We are dealing here with mental states, not physical ones; and if people say that they feel worse after ECT, we have to accept that they are worse.

Does ECT help?

The use of ECT is justified, if at all, in empirical practice. Many psychiatrists claim that in their clinical experience ECT is effective or even life-saving, especially in severe depression. However, such assertions need to be backed up by research evidence, which is mostly lacking. Much of the research in this area is of very poor quality – failing, for example, to include follow-up periods or control groups (Clare, 1993). The picture is further clouded by the fact that papers are often quoted misleadingly or inaccurately – papers that are commonly quoted as support for ECT’s efficacy repay careful reading. For example, Greenblatt *et al.* (1964) appears to be the source of the common claim that ECT is effective in 8 out of 10 cases (made, for example, in an unreferenced statement in the Royal College of Psychiatrists’ 1997 factsheet on ECT).

In fact, the response to ECT in this study was equalled by that to antidepressants.

The Royal College of Psychiatrists’ *ECT Handbook* states that it is established as an effective treatment, and quotes Buchan *et al.* (1992) in support. This careful study (generally considered to be the best set of trials yet) compared sham (that is, the procedure but with no seizure) and real ECT and followed patients up at four weeks and at six months. It concluded:

- ECT did have some beneficial effects, but only on those patients whose depression was accompanied by physical retardation or delusions (a very small minority of those who are diagnosed as depressed). In their words, ‘real ECT does not appear to be effective in non-retarded, non-deluded patients’ (p.359).
- This benefit was apparent at four weeks. At six months there was no difference between treatment and placebo groups.

Other trials (e.g. Gregory *et al.*, 1985) confirm that benefits are short-term. A number of other reviews (e.g. Breggin, 1997; Cauchon, 1995a; Skrabanek, 1986) have generally been unable to find any controlled studies that showed benefits lasting longer than four weeks.

In summary, there is reasonable evidence that ECT can be effective, in the short term and within the provisos about ‘effectiveness’ outlined in the introductory points, for a small subsection of those who are severely depressed. But sound evidence for the effectiveness of ECT in other conditions is lacking. For example, a Cochrane review found only limited evidence to support its use in schizophrenia, the condition for which it was originally indicated (Tharyan & Adams, 2002). It is also widely acknowledged by psychiatrists that the relapse rate is high (Royal College of Psychiatrists, 1995), and there is no evidence that benefits last more than four weeks.

Does ECT prevent suicide, or death through refusal to eat?

ECT is sometimes given in the belief that the risk to the patient’s life will be reduced. There is, however, no hard evidence that ECT prevents suicide. The paper often quoted in support of this view (Avery & Winokur, 1976, p.1033) in fact states: ‘In the present study, treatment was not shown to affect the suicide rate.’ Various other studies (Black *et al.*, 1989; Fernando &

Storm, 1984; Milstein *et al.*, 1986) have also failed to find any reduction in suicide rates.

The idea that ECT may *increase* the risk of suicide has never, to my knowledge, been discussed in the literature. However, it must be borne in mind as a possibility. The most famous example is Ernest Hemingway, who told a friend: 'What is the sense of ruining my head and erasing my memory, which is my capital?... It was a brilliant cure but we lost the patient.' (quoted in Frank, 1978.) He killed himself a few weeks later. Biographers of Sylvia Plath have argued that fear of being given ECT again was a significant factor in her suicide (Rowley, 1998). The family of Joseph Docherty, who killed himself after warning staff that he did not want any more ECT, was recently awarded a large settlement (Daly, 1999).

The Buchan *et al.* (1992) study summarised earlier is relevant to the situation where patients are refusing food. They did find, as noted above, that very severely depressed patients had some short-term benefits from ECT. But an earlier version of the trials concluded that 'many depressive illnesses, even if severe, may have a favourable outcome with intensive nursing and medical care even if physical treatments are not given' (Johnstone *et al.*, 1980). So it seems reasonable to offer alternatives to ECT even for the small number of people who may show short-term benefits from it – including those who are suicidal or are refusing food.

In any medical treatment the benefits must be weighed against the risks. In the case of ECT this means asking not only 'Does it help?' but also 'Does it do harm?'

Can ECT do harm?

The practice of ECT has long been acknowledged to be unsatisfactory, even by those who see a place for it (Kendell, 1998). In the last 25 years the Royal College of Psychiatrists has carried out three large-scale surveys (Duffett & Lelliott, 1998; Pippard, 1992; Pippard & Ellam, 1981), but even the most recent one found that there were still serious deficits in the administration of ECT, with only one third of clinics meeting RCP guidelines. For example, staff were poorly trained and supervised, and some clinics used machines that did not allow a sufficiently wide range of current to be delivered, so that patients with a low seizure threshold, which can vary up to fortyfold between different people, were at risk of receiving too high a dosage.

This risk is particularly important given Pippard's (1992) assertion that 'cognitive function is liable to be more impaired the more the stimulus exceeds threshold' (p.632). This amounts to an admission that cognitive impairment is currently unavoidable for an unknown number of ECT recipients. A former president of the Royal College of Psychiatrists has warned that this is a scandal waiting to erupt (Kendell, 1998).

The same survey indicates that twice as many ECT treatments are given per head of the population in the North West compared with London, while a previous survey found seventeenfold variations between different hospitals and even greater ones between different consultants (Pippard & Ellam, 1981). This suggests a lack of agreement about good practice with the possibility that many people are receiving ECT unnecessarily.

The issue of possible harm by the very nature of the intervention, even where guidelines are followed, is, of course, highly controversial. Despite the technical problems described above, it is asserted that 'repeated studies over 50 years have failed to reveal any memory loss beyond the first few weeks' (Freeman, 1992). The Royal College of Psychiatrists' factsheet states that it is 'among the safest medical treatments given under general anaesthesia' and that '*as far as we know* [italics added] ECT does not have any long term effects on your memory or intelligence'. (The phrase I have italicised was added in the 1997 version.)

Critics of ECT have summarised a large body of evidence which, they say, has been overlooked, misrepresented or ignored (see e.g. Breggin, 1997; Frank, 1990; Friedberg, 1976; Morgan, 1991). They claim that general mental and emotional dysfunction, not just memory loss, is a consequence of ECT, and they cite evidence of abnormalities and brain damage from

animal studies, human autopsies, human brainwave studies, MRI scans, case histories, memory tests, and so on. They point out that the idea that ECT causes brain damage was first introduced by its advocates, who considered that this was a price worth paying: 'The evidence assembled from the various fields of investigation in regard to shock therapy points definitely to damage to the brain.' (Freeman and Watts, quoted in Frank, 1978, p.17.) Some critics also point out that an accidental shock to the head strong enough to cause a convulsion, perhaps from a faulty domestic appliance, would normally be treated as a medical emergency (Breggin, 1997).

It is also worth noting that several studies have found increased mortality rates in ECT patients compared with patients not receiving ECT (Babigian & Guttmacher, 1984; O'Leary & Lee, 1996; Tsuang *et al.*, 1979). While the precise reasons for this are unclear, it seems that any short-term benefit may be bought at the expense of higher long-term risk of death from various causes.

It is sometimes forgotten that the administration of ECT inevitably carries some risk of mortality if only because of the use of a general anaesthetic. In Texas, which keeps a record of all deaths that occur within 14 days of ECT, the mortality figures for the elderly stand at 1 in 200 (Cauchon, 1995b), mostly due to cardiac problems. These are important facts to set against the argument that ECT can be life-saving in elderly severely depressed patients, who are the largest group receiving it, both with and without consent.

What are the psychological effects of ECT?

Surveys show that 30–43 per cent of people find ECT helpful. However, up to a third of all those who undergo ECT

report that it was a very distressing experience (Rogers *et al.*, 1993; United Kingdom Advocacy Network, 1996). Recent research (Johnstone, 1999; MIND, 2001) shows that people may react to ECT with strong and enduring feelings of terror, shame, humiliation, failure, worthlessness and betrayal, and a sense of having been abused and assaulted. Some experience ECT as a damaging repeat of earlier traumas, including physical and sexual abuse. An underlying theme was a profoundly different understanding of depression to the professionals; these people believed that they had broken down for reasons which a physical intervention obviously could not address. They were left with their emotional difficulties compounded, and their trust in mental health professionals undermined.

How does ECT 'work'?

In the absence of established theories about ECT's mechanism of action, the question of how it works (in the cases where it does seem effective) becomes particularly important. Peter Breggin, an American psychiatrist and long-time opponent of

ECT, has argued that its effects coincide precisely with the known sequelae of any trauma to the brain – the acute stage of confusion, headache and nausea, followed by a period of emotional shallowness, denial and artificial euphoria that usually wears off after four weeks. The loss of painful memories may also be experienced as a relief. He believes that it is this state that is sometimes mistaken, by staff and patients, for improvement. In this view – shared by others who oppose ECT – brain damage is not just a risk at a few clinics with outdated equipment, it is the basic mechanism of action in every case. 'There can be no real disagreement about its damaging effects. The only legitimate question is: How complete is recovery?' (Breggin, 1997, p.140.)

Ethical issues

If the critics of ECT are right, then the decision to administer it becomes more complex than an evidence-based assessment of the risk–benefit ratio, such as that carried out by NICE. It becomes an ethical issue as well. In the words of neurologist John Friedberg:

Assuming free and fully informed consent, it is well to reaffirm the individual's right to pursue happiness through brain damage if he or she so chooses. But we might well ask ourselves whether we, as doctors sworn to the Hippocratic Oath, should be offering it. (Friedberg, 1977, p.1013)

These sentiments have been strongly echoed by service users: 'It is not justifiable to give people something that harms their brains and gives them an epileptic fit on the NHS. It's just not, in my view, an ethical way to proceed'; 'It is inhuman and inhumane' (Johnstone, 1999, p.81).

Equally, if this is an ethical and not just a medical issue, it raises questions for all professionals working in psychiatry and mental health, not just doctors. At the very least we need to inform ourselves about this controversial practice and be willing to enter the debate.

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