CONTROVERSY

ECT: A measured defence

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Waikar *et al.* express forceful opinions about ECT. I am duty bound to inform readers that their article contains at least 25 serious factual errors, and 17 serious errors of perspective and context. Space constraints do not allow me to provide a point-wise, scientifically-referenced refutation of their article; however, if readers with specific concerns write to me, I will provide clarifications supported by research published in journals of repute.

I am aware that nongovernmental organisations require a drum to beat to make their presence felt; however, I would prefer to ascribe more ethical motives to these authors, and believe that they think as they do because they have no (stated) medical or psychiatric background nor direct experience with ECT. My response will therefore be measured and good-tempered.

The views of Waikar *et al.* can be resolved under two headings: that ECT is barbaric, and that unmodified ECT is especially unethical. I will consider each of these views.

Is ECT barbaric and should it be discontinued?

From an emotional perspective, a seizure-inducing treatment could certainly seem barbaric. However, if ECT is barbaric or unattractive, so too are cardioversions, abortions, Caesarean sections, radical mastectomies, open heart surgeries, orthopaedic and neurosurgical procedures, and countless other medical and surgical interventions; so, where does one draw the line? The answer is simple: if the risk–benefit ratio favours the treatment, and if the treatment is better than existing alternatives, in the interest of the patient the treatment must survive. This cold logic has guided medical practice for decades, and is the reason why ECT remains a valuable treatment more than six decades after its introduction.

There are certainly countries, such as Japan and Italy, in which the practice of ECT is dying out for idiosyncratic reasons (and not because of legislation). However, in countries in which a high quality of care is assured to patients, ECT continues to be practised. In the USA, where the standards of medical care are higher than anywhere else in the world, the use of ECT is, in fact, increasing (1). During the past decade millions of dollars have been allotted in over a dozen research grants from the US Government through the National Institute of Mental Health (NIMH) to study different forms of ECT (2). A multicentre consortium, funded by more multi-million dollar. NIH grants, NIH grants, is currently examining wider indications for ECT such as the extension of ECT into the maintenance phase of treatment (3).

We therefore, do Waikar *et al*. express the views that they do? Perhaps it is because they have come across instances of the sub-optimal practice of ECT. If so I have two responses:

1. If a treatment is abused, the practitioners are to blame, and not the treatment. Readers will know that treatments ranging from antibiotics to Caesarean sections are over-enthusiastically used by unscientific or unscrupulous practitioners; yet, this is not an argument for withdrawing antibiotics or abolishing Caesarean section. By targeting the treatment because of its misuse, Waikar *et al*. compromise their own judgement and credibility.
2. A treatment is best evaluated at centres at which it is well practised. I encourage Waikar *et al*. to visit centres, such as the one at which I am employed, where ECT is administered only after obtaining informed consent and in accordance with international guidelines. Waikar *et al*. will discover that patients who receive ECT are grateful for the intervention. None of my colleagues, nor I, have encountered patients who considered that we used ECT as a form of punishment or torture. If Waikar *et al*. form opinions from a few patients who have felt ill-used by ECT, they have a moral duty to moderate these opinions with the views of the large segment of patients who appreciate the treatment.

In this context I ask Waikar *et al*. how many patients they have personally interviewed who have resented receiving ECT and whether these patients identified through systematic sampling or did they form a disgruntled, unrepresentative subgroup? Scientifically, only patients identified through a recognised method of sampling can be considered representative of the population this is be-

cause dissatisfied patients can be found for all treatments.

True, ECT is associated with adverse effects; the commonest problems are transient memory disturbances, headache, and bodyache. Less commonly, more severe or longer-lasting memory disturbances may occur. Taken out of context, these adverse effects argue against the use of the treatment. However, taken out of context, the brutality of open heart surgery and the cognitive impairment that the procedure produces (4) should, similarly, argue against the practice of such surgery. As stated earlier treatment decisions are based on risk–benefit ratios, and on comparisons with existing alternatives. Thus, when the common and uncommon adverse effects of ECT are compared with the common and uncommon adverse effects of drugs, and when the superior benefits with ECT are measured against the unimpressive effects of drugs in selected sub-populations of patients, it appears that, for these sub-populations of patients, adverse effects notwithstanding, ECT can be the treatment of choice.

Is unmodified ECT unethical?

Early during my research career, I found that only 44.2% of Indian psychiatrists who administered ECT always administered modified treatments, and that as many as 24.2% invariably administered unmodified ECT; I was appalled (5). When Tharyan *et al.* (6) published data which suggested that risks with unmodified ECT were fewer than earlier believed, I reacted with the same horror that Waikar *et al.* presently show (7).

I received mixed support. Practitioners in large institutions, such as my own, supported my views. Practitioners in small psychiatric facilities, however, chose to disagree. They believed that I had no right to preach from an ivory tower, ignoring the ground realities of the environments in which they worked. Their arguments were reasoned. If a patient who is stuporous or suicidal requires ECT as an emergency intervention, would it be more ethical to allow him to die because an anaesthesiologist is not immediately available to supervise ECT? If a patient is psychotically depressed in a town in which the anaesthesiologists are burdened with surgical caseloads, would it be more ethical to allow the patient to suffer for weeks to months, receiving drugs which are less effective, because the anaesthesiologists did not have time for minor procedures such as ECT? If a poor patient suffers from an illness for which ECT is the treatment of first choice, would it be more ethical to allow him to suffer for months or longer with less effective drugs because he cannot afford the extra hundreds of rupees per ECT that the use of anaesthesia necessitates?

In the face of these arguments, I realised that the only way to convince my colleagues against unmodified ECT was to obtain and publish hard data on the morbidity associated with it. My colleagues and I chose to focus on spinal fractures with the treatment, the most common complication recorded in western literature. The study was conducted in a hospital in which unmodified ECT was routinely administered because of unavailability of anaesthesiological support. Anterioposterior and lateral X-rays of the thoracolumbar spine were routinely obtained before and after a course of unmodified ECT, and after every complaint of backache in 50 consecutive patients who received the treatment, to utter astonishment only 1 patient (2%) experienced an adverse spinal event; this was considered relatively minor by the consultant orthopaedist, and was treatment with non-steroidal anti-inflammatory drugs alone (8).

I no longer shrilly condemn unmodified ECT. However, to reassure Waikar *et al.* I do not condone the procedure either. When we published our unmodified ECT study, we concluded with several paragraphs on the limitations of unmodified ECT; we added a strong caveat that our findings were not an endorsement of its routine practice. Waikar *et al.* completely misread my views in my commentary (9); to quote.

'It therefore appears prudent to conclude that while modified ECT may be the ideal, there can be situations in which unmodified ECT may be preferable to no ECT. Examples of such situations are those in which ECT is strongly indicated but anaesthesiological facilities are unavailable or unaffordable; in such situations, the expected gains with ECT are likely to far exceed the risks with unmodified treatments. The stage is now set for a systematic audit of modified as well as unmodified ECT so that better data may be made available upon which more valid decision-making can be based.'

I stand by my statements. If Waikar *et al.* wish to outlaw the practice of unmodified ECT, they may be shutting the door for effective treatment for a number of patients who seek psychiatric care in situations in which anaesthesiological facilities are unavailable or unaffordable. Will Waikar *et al.* take the responsibility for the suffering, or possible death, of these patients? I remind readers that we are living in a country in which even minimal standards of healthcare cannot be assured to enormous segments of the population; under these circumstances, a sub-optimal form of treatment could be better than no treatment. On the subject of 'sub-optimal form of treatment', I add that there is insubstantial evidence that unmodified ECT is as bad as it is made out to be.

The inevitable conclusion is that it is necessary to objectively compare the benefits and risks of modified and unmodified ECT, as well as patients' experiences with

and subsequent attitudes towards these two forms of treatment because, in an era of evidence-based medicine, only when the results of such research become available can truly informed, scientifically and ethically valid opinions be expressed.

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