

Hippocrates

Allergy to electricity: Fact or fiction?

The least commendable group of alternative healers – perhaps one might still consider them as charlatans – thrive on the treatment of imaginary conditions. There is often nothing very reprehensible about that; people with imagined diseases often find them very unpleasant, react well to suggestive treatment in whatever guise it is given, and are grateful for it. The borderline surely lies, however, at the point where the “imaginary” condition in fact is a collective term for one or more types of genuine affliction which have not been diagnosed, but which need to be properly examined and treated.

“Hypersensitivity to electricity” (or to electromagnetic fields) is a case in point. There is little doubt that exposure to extreme electromagnetic fields – as they may exist for example in the neighbourhood of a large radio transmitter – cause symptoms and may be positively harmful to some individuals. “Electricity allergy” as it is most commonly described is, however, complained of by a group of individuals with no such extreme exposure. Nevertheless under what appear to be normal conditions of modern life they develop a variable spectrum of adverse symptoms and find reasons to attribute them to electric current and magnetic fields. Some flee to the countryside to escape. At the other extreme one finds a group of renowned European experts concluding that the disorder probably does not exist.¹ So what is going on? The European study gives some clues, as does other recent work.

The truth may be simply that, while some patients who believe that their very variable spectrum of complaints are due to electricity are hypochondriac, and are suffering from exposure to some specific business stress, domestic allergy, pollution (“sick building syndrome”) or – perhaps more important – are found to react badly to high-frequency flickering light (as with computer screens, TV or fluorescent lighting); all these noxious factors tend to be common in electrified environments and absent in non-electrified environments (such as a country cottage), which leads to a mistaken attribution to electricity. This variety of true causes (or none) goes far to explain the variability of the symptoms: Patients with house dust allergy are, for example, more likely to develop skin disorders, patients sensitive to flicker may develop ocular symptoms or nervous complaints.

Against this background it is tremendously important to take the patient with this “syndrome” seriously, gently set aside the umbrella explanation relating to electricity, and look for one of the above specific causes. There is a fair chance that one will be found, and will prove amenable to proper treatment.

Ethics Committees: Competent and independent?

In one way or another, people have been concerned about the safety of research subjects for a very long time, but it is well under half a century since the first serious attempts were made to translate that concern

¹U. Bergqvist and E. Vogel (Eds), Possible health implications of subjective symptoms and electromagnetic fields, A report for the European Commission, D.G.(V). National Institute for Labour and Health, Solna, Sweden (1997).

into understandable norms and useful guidelines.² Even if one traces some of the thinking back to the Nuremberg Code of 1949, the first Declaration of Helsinki only dates from 1964, and it was a further decade before America's Department of Health, Education and Welfare issued its first set of proposed regulations on the protection of research subjects. Ethics Committees under that name (or something corresponding to it) are similarly about a quarter of a century old. What have we learnt about their role and usefulness in that time?

The very fact that an Ethics Committee *exists* is certainly the foremost reason why it can have an effect. It causes everyone to stop and pause, fill in an application form, probably defend in committee what he or she is proposing to do, and be very sure that nothing foolhardy is being undertaken. Transgressors can be reported to it. At its best, an Ethics Committee is naturally much more than a mere hurdle to be crossed; it asks the right questions, demands necessary changes and can be generally be constructive in ensuring that what is going to be done to patients or healthy human subjects is defensible and is worth doing. It needs to be fair, it needs a lot of common sense, and it needs to accumulate experience. But how good and competent is the average Ethics Committee? Hippocrates has often encountered ethics committees which had to survive on very little more than the goodwill of a little knot of people with no special insight in the field, simply persuaded (or pressganged) into filling chairs at an occasional meeting: the hospital chaplain, the retired hospital director, an interested nurse, a consumer representative and probably a local pharmacist on his free day. The weakest ethics committees may serve as little more than decoration, particularly if they are faced with industrial sponsors of research who in fact may have their own (equally variable) ethics procedures.

The bioethics community in the USA have had their doubts for quite some time:

“... if you approach any endeavour as an amateur activity, you will get, in the end, an amateurish version of the activity. Without a sufficient commitment of personnel, time, support and financial resources, a healthcare organization will get the ‘ethics’ program... it set out to create: an inept, unskilled, inefficient, and highly risky ‘program’ in healthcare ethics and bioethics.”³

Early in 1998 a group of bioethicists in Maryland, USA, obtained funding from the Greenwall Foundation to examine precisely this issue: are ethics committee members competent to consult? The issue related in part to the competence of members meeting in committee and in part to their capacity for effective involvement when called upon to consult alone. Maryland is, interestingly enough, even today the only State requiring by statute that every hospital have an “ethics committee”, more commonly known as a patient care advisory committee. The name is significant because such a committee has a considerably broader role than merely assessing proposed clinical investigations. That is all to the good; there are plenty of ethical issues in patient care which go beyond matters of clinical research.

Using questionnaires addressed initially only to the chairpersons of bioethics committees but later also to committee members, the study probably missed useful data which could have been picked up in personal contact and discussion, especially since the response rate was no more than 60% for chairpersons and 40% for members. However there were striking findings.⁴ Data from chairpersons alone profiled a lack of formal educational preparation on the part of ethics committee members who performed “consults” and a general lack of the sort of institutional support for ethics committees which

²For an early overview of thinking as it developed up to the eighties, go back to Robert Levine's 1981 book, *Ethics and Regulation of Clinical Research*, Urban and Schwarzenberg, Baltimore and Munich.

³D. Blake, *Vital Signs* 75 (September 1998), 1–2.

⁴D. Hoffmann, A. Tarzian and J.A. O'Neil, Are Ethics Committee Members Competent to Consult? *J. Law Med. & Ethics* 28 (2000), 30–40.

could have promoted their work and their standards. Fewer than one third of committee members had a formally trained philosopher or bioethicists on their role of members; only one chairperson had a degree in bioethics. Only one committee in nine demanded any sort of training or apprenticeship. As one respondent put it:

“I am always troubled by the total lack of knowledge re ethical principles of a majority of the committee members. . . Our chairman. . . is hampered by the dearth of eligible persons to serve on the committee. At our last meeting we actually had to explain the definition of an ‘ethical dilemma’ to one of our physician members. . .”

One can do something about these shortcomings, even if the problem of recruitment is likely to persist. A few hospitals provide members of their ethics committees with selected reading materials on bioethics, some send members to courses, and a very few have a book of ethical standards which has been compiled within their walls. Perhaps, however the most important obstacle is the persistent dominance of complete amateurs – people often of great goodwill but to whom ethics is a “soft science”, not truly deserving of the name of science at all.