EDITORIAL

EVIDENCE-BASED MEDICAL PRACTICE: THE COCHRANE COLLABORATION AND OSTEOARTHRITIS

It is a sine qua non of good medical practice that patients be offered the best available therapy for their condition. Evidence for the efficacy of treatments derives from clinical trials of particular agents or interventions and, of these, it is the randomized, controlled trials (RCT) which hold centre stage. It is estimated that there are now over 250,000 published controlled trials of health care interventions and over 15,000 RCTs are published annually, with the number doubling about every 5 yr.

With this explosion in medical information, it seems logical to try to sort out these interventions into groups according to evidence of usefulness [1, 2]. This would allow for the development of guidelines for appropriate treatment using interventions which show improvement in outcome or important benefit/harm trade-offs—and interventions where there is clear evidence of ineffectiveness or harm. Inclusion of cost-effectiveness data will also allow decisions to be made regarding equivalent treatments of differing cost to the patient and society. It will also identify interventions where there is inconclusive evidence and further work needs to be performed.

As Silagy [3] has pointed out, such systemic reviews of the medical literature are slow to evolve, investigations are often repeated and clinical practice usually lags well behind. For example, as long ago as 1972 there was clear evidence for the benefits to neonates of corticosteroids administered to pregnant women entering premature labour [4] but 11 further studies were carried out before a systematic review of these RCTs was published in 1989 [5]. This confirmed the results of the early study showing the odds ratio for babies dying from complications of immaturity could be reduced by between 30 and 50% if corticosteroids were administered appropriately. In the intervening years, mothers and babies had suffered significant morbidity and mortality, with major costs accruing to the health care system [5]. Something needs to be done to make the evidence about appropriate health care interventions readily available to every practitioner.

The Cochrane Collaboration is currently evolving to meet this need, centred around two main enterprises. The first is the establishment of registers of RCT in all fields of medical practice. The second is the formation of collaborative review groups within particular fields. Each will take a specific issue and develop a systematic review, to be made widely available and updated as new relevant publications become available. The work of field co-ordination and the collaborative review groups is facilitated by the establishment of Cochrane centres around the world, and a steering group which determines policy and direction within the collabora-

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bone scintigraphy and ultrasound may help in this regard. Markers of cartilage breakdown are now being measured in synovial fluid, blood and urine and these too may act as quantitative markers of cartilage degradation in clinical trials [10]. Of overriding importance is the conduct of carefully controlled, randomized clinical trials to test these interventions, and the establishment of systematic reviews of the resultant data; the Cochrane Collaboration provides an ideal forum in which this can occur.

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REFERENCES


THE PLACE OF ACUPUNCTURE IN MEDICINE TODAY

The recent publication of a short paper on the analgesic effect of acupuncture in chronic tennis elbow pain [1] will have provoked a mixed response among readers. In itself the paper does not take forward the boundaries of our knowledge of the effects of acupuncture. The short-term, analgesic effects of acupuncture have already been well documented in headache [2, 3], back pain [4] and facial pain [5] and in many other conditions. It is the publication of the study in a leading scientific journal that is of historical importance. The trial was well-conducted and simple. It set out to answer only one question, paid careful attention to the placebo used and achieved statistically significant results. The authors recognized that these results need to be validated and it is hoped that they will carry their trial design forward to a longer study of the long-term value of acupuncture in the treatment of this chronic, intractable condition.

Acupuncture is probably the oldest medical treatment still available world-wide today. Tools for and descriptions of acupuncture treatment can be dated to the New Stone Age [6]. The medical treatise, Yellow Emperor’s Internal Classic, was compiled between the fifth and first centuries BC. By this time Chinese medicine had become a systematic form of treatment, with its own theories, descriptions of practice and tools. This system was changed little during the succeeding centuries and has survived to this day as a separate form of practice from Western scientific medicine. It is the language of traditional Chinese medicine, as well as anecdotal, unscientific descriptions of clinical studies, which has hampered the correct study and application of acupuncture in Western medicine.

Acupuncture has gained wide acceptance as a treatment in this country in the last 20 yr. It was embraced enthusiastically and uncritically by patients and non-medical practitioners 30 yr ago and at first was provided outside the National Health Service (NHS), as an unorthodox and ‘alternative’ therapy. The discovery of the endorphins and the further work showing that various neuropeptides are produced during acupuncture treatment [7–9] led to renewed interest among doctors and physiotherapists and ultimately, the spread of acupuncture practice more widely in the NHS. Acupuncture is offered now in most pain clinics, in many physiotherapy departments and general practice premises and in some large NHS clinics [10].

The demands of patients are hardly being met even now and funding for clinics is hampered by two main obstacles—lack of trained personnel and lack of scientifically based evidence on the efficacy of acupuncture. Whilst it is important that this country is not seen to be depriving patients of an apparently safe and efficacious treatment for chronic painful conditions, that clinicians consistently fail to treat adequately, it is equally important that those seeking to introduce acupuncture more widely should turn their attention to the necessity to provide adequate evidence of its efficacy that is scientifically credible.

This is certainly no mean task. While there is now an agreed nomenclature for acupuncture points and a considerable basis of knowledge of the anatomical