Acupuncture: Does it have a place in Military General Practice?

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SUMMARY: Acupuncture can be learnt by doctors in a short space of time. Its mode of action is becoming increasingly understood and attempts are being made for statistical evaluation to allow for Western medical acceptance. After attending a basic course in acupuncture, the author describes his first one hundred cases. The preponderance of military patients, chronicity of the presenting complaints and the promising results obtained, illustrates the potential use of such a simple technique in military general practice.

Introduction

Until recently, acupuncture has been viewed with scepticism by both doctors and the public. Helping illness by inserting needles into various parts of the body, without the use of drugs, left many attributing benefit to suggestion and placebo. Complementary medicine is openly questioned (1) but 65% of a sample of hospital doctors in the United Kingdom felt it had a place in mainstream medicine (2). However, with the rise of consumerism, treatment by acupuncture has become more widespread. Its use is fuelled more by the lobby of satisfied individuals than by the application of evidence based medicine, although the meta-analyses required by the medical profession are beginning to appear (3,4,5).

This ambivalence is understandable. For any new technique to gain acceptance in Western medicine, statistical rigour must be applied, but acupuncture fights a difficult battle. The randomised, double-blind crossover trial does not lend itself to the assessment of acupuncture, as patients are usually aware of needles being inserted into their skin, and "sham" acupuncture points are not only felt by the patient to be obviously different, but may indeed produce a small detectable response (6). Yet academic justification is the course that must be followed, rather than the inevitable case reports which are easily encountered, and interesting, but rightly fail to influence medical practice on a large scale. From April 1995, the Cochrane Collaboration has started to recruit information on randomised controlled trials in acupuncture (7), as part of a Cochrane "field" of Complementary Medicine. This will be the course required for acupuncture to gain credibility and acceptance in modern medicine.

Acupuncture works by a mechanism that is increasingly understood, but only a brief outline is within the remit of this article. Essentially, the acupuncture response works at three levels (8). Firstly, at spinal cord level (where enkephalin and dynorphin block incoming pain messages) and secondly at midbrain level (where enkephalin activates the Raphe descending system, thus inhibiting spinal cord transmission with a concomitant release of monoamines such as serotonin). Finally, there is the action at the hypothalamus and pituitary level (where the pituitary releases beta-endorphin into the blood and CSF, causing analgesia at a distance, and the hypothalamus sends impulses via long axons to the midbrain and activates the descending analgesia system by the use of beta-endorphin again). ACTH is also produced on an equimolar basis to beta-endorphin (9) as both are made from a common precursor. This feature may account for the longevity of the acupuncture response, which is often well in excess of the half-life of an opioid.

Acupuncture needles come in a variety of sizes, in the described cases those used most commonly being 0.16mm in diameter. Given such fineness, introduction of the needle through the skin is achieved via a plastic introducer tube. Both are single use items.

The principles of point selection depend on a knowledge of the hundreds of acupuncture points available. The needling utilises local acupuncture points in the areas affected, locally tender (Ah Shi) points, points of special action (perhaps best viewed as the basic building blocks of the treatment) and formulae of tried and tested combinations of points. Ear points are also used, but auricular acupuncture is outwith the scope of this article.

Safety is an important issue (10). The problem feared most by patients is that of painful needling, which is usually a reflection of poor technique. From experience, pinhead bleeding occurs after the withdrawal of perhaps one in ten needles. The effect of endorphin release is rarely reported as an adverse effect, and is more a pleasurable aspect of the treatment. Serious problems can arise from acupuncture (10) and are often the result of a lack of anatomical understanding. Pneumothoraces have been reported (10) as the most common major complication. A case of cardiac tamponade described after needling an acupuncture point over the sternum (10) reflects not only aggressive needling far beyond that of most acupuncturists, but also a lack of knowledge of the occasional formation of congenital sternal foramina. Acute angling of the needles to the skin, rather than perpendicular needling, is always recommended in this area, to avoid this rare possibility.

The range of treatable conditions is dependant on where acupuncture rests in the therapeutic armoury of the general practitioner. Options are wide ranging, but for the purposes of this article are best encompassed by the three principles of pain relief, of muscular tension and mental

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relaxation. Initial attendance is followed by review at approximately weekly intervals, in order to produce a cumulative response.

The aim of this article is to study the first one hundred cases managed by the author after attending the Basic Course in Acupuncture of The British Medical Acupuncture Society (BMAS) with a view to assessing the applicability of acupuncture to military general practice. The BMAS is a doctor-only society and the course involves two weekends of instruction, one month apart. It allows immediate application of the newly learnt knowledge and skills to daily general practice.

It is hoped that the results outlined below will allow the reader to appreciate the relevance of acupuncture to Army General Practice and encourage awareness of the benefits, and possibly a desire to learn the techniques.

Patients and methods

The Regional Medical Centre in Aldergrove is a bi-service (Army and Royal Air Force) general practice, with a population of 3500 patients, comprised of both service personnel and their families, with an annual consultation rate of 5.9. After attending the first weekend of a two weekend course, acupuncture was offered to those patients who were thought suitable for the procedure. Treatment was offered during the initial consultation and, if accepted, a further appointment was made for treatment. However, as operator confidence and experience grew, treatments were often given during the first consultation. Use was also made of the 8-bedded ward, to allow for treatment at leisure and to avoid interference with clinic timings.

Acupuncture was explained to the patient and stressed that it was a complementary, as opposed to an alternative therapy. Consultation was otherwise unchanged in that history taking, examination and investigations were uninfluenced by the new technique. Notes were made in both the patient file and in a separate acupuncture file, where presenting problem, examination findings, investigations and points used were recorded. This utilised a BMAS produced form using World Health Organisation nomenclature for point notation.

Response to treatment was recorded at the end of each session, and comments sought about extent and duration of response to the preceding session. Overall response was judged by patients after being offered four options: excellent, good, mild and nil. Responses were recorded in the surgery and by telephone follow-up.

Results

One hundred patients were treated with acupuncture in the first eight months after attending the BMAS course. There were 68 military patients of whom 10 were female (Fig 1). Given the military bias of the treatment group, it is perhaps not surprising to note that most of the problems treated, 73, were of a mechanical nature. Of the remaining 27, minor psychological upset accounted for 8 (Table 1).

More than half (55) of the problems had been present for some months or years prior to acupuncture (Fig 2), and 53 of all problems were given treatment in only one contact. Multiple visits were undertaken as noted in Figure 3, the maximum number of visits for a problem (persistant thoracic back pain) being 7. A total of 1118 needles were used in the 197 visits for the 100 patients, giving an average needle usage of 5.7 per patient contact. Each needle cost 11 pence, giving an average cost per treatment of 63 pence.

The outcome for each treatment is noted in Fig 4. All except 6 patients responded to some degree, and 62 of the responders noted an excellent response. For the 29 problems that had lasted for years (Fig 5) there were 21 excellent, 4 good, 2 mild and 2 nil responses. Of these

![Fig 1. Acupuncture Patients](http://jramc.bmj.com/)

**Table 1**

<table>
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<th>Condition</th>
<th>Acute</th>
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<td>15</td>
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cases, 22 were mechanical in nature, with the 2 nil responses coming from this group. Mental illness accounted for all but one of the remaining 7 problems, with 4 excellent responses being obtained. Of these, 2 notable results involved a benzodiazepine withdrawal success, and dramatic help with a severe case of agoraphobia.

Only 5 adverse effects were noted. There was one episode of careless needling; one patient complained of feeling drunk; one case of worsening headache; one complaint of increased emotion and one case of worsening pain. Many other patients made comment on the soporific effect of the needling, but described it more as a desirable than adverse effect, and the majority reported a feeling of relaxation and calm. Of the 100 problems, 37 of them involved referral to further agencies, the most frequent being that to physiotherapy (19 referrals).

Discussion
The results of this series appears to show the benefits of simple acupuncture for various problems, many of which were chronic and resistant to more conventional techniques. Indeed, acupuncture can be the first treatment option. This relies upon good patient choice and constant self-reminders that acupuncture does not replace conventional medicine, but complements the treatment techniques already available.

In recording results, the operator was careful not to ask leading questions regarding the outcome of treatment. However, after only a few weeks of using the new method, the consistency of an unsolicited excellent response was apparent. The use of a 10 point visual analogue scoring system is often advocated for the measurement of response and may be tried in the future, but the four point scale described has the advantage of spontaneity and simplicity. Further efforts are required to apply objective Western statistical method to a technique lending itself to qualitative responses. Regardless of the recording technique used, outcome will always prove the most difficult factor to measure.

The outcomes in the above 100 patients were strongly positive, and has reinforced a personal perception that acupuncture meets a need for both patient and doctor. The immediacy of response, and the patient leaving the surgery quite obviously feeling better, has a positive effect on the morale of both patient and doctor. The nil response in only 6 patients was notable.

The lack of side effects of the treatment was welcome. No serious effects were seen in this group and indeed, with care, there should be little chance of any. One lady was given treatment whilst warfarinised (INR>2) after a
"test needle" was shown to be safe, emphasizing the minimal invasiveness of a seemingly threatening procedure.

Most cases of treatment were for musculoskeletal problems, and the preponderance of military patients suggests high military applicability. This general grouping of musculoskeletal problems hides the diversity of conditions treated, ranging from chronic achilles tendinitis to acute whiplash injury. Several patients were treated with acute neck sprain after road traffic accidents, and the uniformity of excellent responses was remarkable. The extent of analgesic response was likened by one severely affected lady, only two hours post accident to the efficiency of her epidural during childbirth. Two pethidine injections were avoided due to the sudden profound analgesic response to acupuncture, one in a neck injury and one in an ankle fracture (both of which were referred to A & E departments). These opioid injections were requested by the author, but the acupuncture needles allowed for successful trials of treatment, being inserted before the locked controlled drug cabinet could be opened. Interestingly, both patients objected to the needles being withdrawn prior to being loaded aboard the ambulance, as the analgesic effect was so appreciated.

Another more specialised application of the technique is among the considerable number of pilots at Aldergrove. The frequent use of ergonomically stressful night vision goggles by the pilots, and the universal use of body armour in all aircrew, whilst sitting in poorly designed seats, flying the highest hours of any Army or RAF station, takes its toll in the form of chronic neck and back strain. Acupuncture offers a non-drug treatment with good results, and is an attractive option in allowing flying during treatment. However, flying should not be allowed for four hours after treatment, given the relaxing effect. This application increases the argument for application of the technique in military general practice.

Another study has recently been carried out in a forces population (11) with similar results. Both reports can be seen as pilot studies for more rigorous statistical evaluation, but provide compelling food for thought in the meantime.

One of the many joys of acupuncture is the ability to offer something new to patients with chronic problems. More than half of the group had difficult problems lasting for months or years, and rapid progress was often made. Treating an acute flare up of rheumatoid arthritis in a patient already on optimal methotrexate and a non steroidal anti-inflammatory drug (NSAID) was particularly noteworthy, with a sudden and dramatic improvement within minutes of first needling. The next planned steroid injection for this patient was avoided, with a concurrent long term reduction in NSAID intake.

Minor psychiatric illness was also treated with success, although it must be remembered at all times that nothing replaces conventional history taking, and that the use of acupuncture in major psychiatric illness is contraindicated. Essentially, the problems treated by needling were stress related. Patients responded by experiencing a relaxing effect, and several commented upon the long-lasting calming influence of needling. The use of acupuncture as the sustaining treatment during a successful withdrawal from benzodiazepine abuse was most rewarding, and further confirmed the claims that acupuncture can have a large part to play in the problems of addiction (12).

The application of acupuncture within pain clinics by anaesthetists is well established and courses through the BMAS are approved by the Royal College of Anaesthetists for Continuing Medical Education points. The above information demonstrates a large return on an investment of two weekends of training, and provides a rewarding treatment option for certain chronic conditions often considered unresponsive to conventional techniques. The cheapness of treatment is a further strong argument for the incorporation of acupuncture into general practice. Finance may be the strongest lever to encourage acceptance and may encourage the employment of the technique in advance of difficult to attain academic justification.

Further work can be done. The recording of outcome requires attention, but there is also the need to look at possible savings in the drug budget. Perhaps most interestingly, acupuncture may allow faster recovery from illness and faster return to work than with conventional treatment. If this can be confirmed, it would undoubtedly have a place in military general practice.

Perhaps the patients should have the final word. Since the author started to offer acupuncture, they have often expressed surprise at a military doctor offering such treatment, and if anything, this in turn appeared to strengthen the doctor-patient relationship. Interestingly, sceptics often turned out to be the strongest converts.

Acknowledgement
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