Research reviews

This section is designed to give a synopsis of some of the latest research published in Medline listed journals over the last year or so. It will concentrate on controlled trials and systematic reviews, but will also include other papers that may be of interest to the readership. Some papers will be reviewed in more detail than others. If summaries and comments are based on an abstract only, this will be indicated. The main reviewer in this section is Mike Cummings, London. Other reviewers are indicated after the relevant review.

RCTs

Acupuncture is superior to invasive sham in chronic low back pain (n=174)


Summary

This prospective, randomised controlled trial, with three parallel groups, patient and observer blinded for verum and sham acupuncture and a follow up of 3 months raises the question: “Does a combination of acupuncture and conservative orthopaedic treatment improve conservative orthopaedic treatment in chronic low back pain (LBP)”.

One hundred and eighty-six in-patients of a LBP rehabilitation centre with a history of LBP ≤ 6 weeks, VAS ≤ 50mm, and no pending compensation claims, were selected. Four weeks of treatment was applied to the three random groups. One hundred and seventy-four patients met the protocol criteria and reported after treatment, 124 reported after three months follow up. Patients were assorted 4 strata: chronic LBP, ≤ 0.5 years, 0.5-2 years, 2-5 years, ≥ 5 years.

Analysis was by intention to treat. Group 1 (Verum+COT) received 12 treatments of verum acupuncture and conservative orthopaedic treatment (COT). Group 2 (Sham+COT) received 12 treatments of non-specific needling and COT. Group 3 (nil+COT) received COT alone. Verum and Sham acupuncture were blinded against patient and examiner. The primary endpoints were pain reduction ≤ 50% on VAS three months after the end of the treatment protocol. Secondary endpoints were pain reduction ≤ 50% on VAS and treatment efficacy on a four-point box scale directly after the end of the treatment protocol and treatment efficacy after 3 months. In the whole sample a pain relief of ≥ 50% on VAS was reported directly after the end of treatment protocol: Verum+COT 65% (95%CI 51-77%), Sham+COT 34% (95%CI 22-49%), nil+COT 43% (95%CI 29-58%) – results are significant for Verum+COT over Sham+COT (p≤0.02). The results after three months are: Verum+COT 77% (95%CI 62-88%), Sham+COT 29% (95%CI 16-46%), nil+COT 14% (95%CI 4-30%) – effects are significant for Verum+COT over Sham+COT (p≤0.001) and for Verum+COT over nil+COT (p<0.001). No difference was found in the mobility of the patients or in the intake of the NSAID diclofenac.

Our conclusion is that acupuncture can be an important supplement of conservative orthopaedic treatment in the management of chronic LBP.

Comment

Some readers of Acupuncture In Medicine will remember this paper being presented at the BMAS Autumn Scientific meeting in October 2001 at the Royal College of Physicians, London. This reviewer has been looking forward to the opportunity of scrutinising the published report of this positive trial of acupuncture in chronic LBP.

This is a well-designed trial that scores highly for internal validity. The acupuncture treatment was a combination of points commonly used for LBP (BL23, 25, 40, 60; GB30, 34) plus four points of maximum pain (‘Ah shi’ points, trigger points or tender points). The latter were usually at BL54 (presumably in piriformis), BL31 or 32 (multifidus). Needles were inserted 1-10cm (presumably dependent on site), and stimulated to produce a numb, warm feeling (‘de qi’). The sham...
Technique involved superficial needling (less than 1 cm) to non-acupuncture points in the lumbar region. It is not stated in the paper, but these points were most likely to be lateral to the outer bladder line, and as such, the stimulus would have been in the dermatomes of T10 to L2. So the sham acupuncture would have given a mild dermatomal stimulus several segments from the likely source of the majority of chronic LBP – the lumbosacral junction. This trial, therefore, provides support for the idea that needling muscle within the segments of pain is superior to needling skin and subcutaneous tissue out with the segments of pain. It does not, as the authors suggest, give strong evidence in favour of needling specific Chinese acupuncture points over non-acupuncture points.

How relevant are the results of this trial to readers’ patients? This judgement can be made by comparing the similarity of the populations concerned and active interventions applied to them. Most of us would use a similar approach to that described in the verum acupuncture arm of this trial, but would we be able to provide three treatments per week for four weeks? The population was taken from in-patients in a rehabilitation centre – an expensive way of managing chronic LBP, and judging by the poor outcome in the COT only group, this is unlikely to be a cost-effective form of management.

The three-month follow-up was performed in the community by family doctors, and the trial suffered a 30% dropout at this point. Analysis of the data based on a worst-case (all dropouts taken as failures) and a best-case assumption (all dropouts taken as successes) showed that a significant result was maintained.

**Acupuncture has short term superiority to flunarizine in migraine prophylaxis (n=160)**


**Summary**

This is a randomised controlled trial extending over 6 months, which evaluated the effectiveness of acupuncture versus flunarizine in the prophylactic treatment of migraine without aura. One hundred and sixty women with migraines were randomly assigned to acupuncture treatment (group A, n=80) or to an oral therapy with flunarizine (group F, n=80). In group A, acupuncture was carried out in weekly sessions for the first two months and then once a month for the next four months. The same acupoints were used at each treatment: LR3 Taichong, SP6 Sanyinjiao, ST36 Zusanli, CV12 Zhongwan, LI4 Hegu, PC6 Neiguan, GB20 Fengchi, GB14 Yangbai, EX-HN5 Taiyang, GV20 Baihui. In group F, 10 mg flunarizine were given daily for the first two months and then for 20 days per month for the next four months. The frequency of attacks and use of symptomatic drugs significantly decreased during treatment in both groups. The number of attacks after two and four months of therapy was significantly lower in group A than in group F, and analgesic consumption was significantly lower in group A at two months of treatment. At 6 months no such differences existed between the two treatment groups. Pain intensity was significantly reduced only by acupuncture treatment. Side effects were significantly less frequent in group A. Acupuncture proved to be adequate for migraine prophylaxis. Relative to flunarizine, acupuncture treatment exhibited greater effectiveness in the first months of therapy and superior tolerability.

**Comment**

UK readers may not be familiar with flunarizine. It is a selective calcium-entry blocker, and a long-acting derivative of cinnarizine. It inhibits contraction of vascular smooth muscle, and has been under investigation for efficacy in migraine prophylaxis. At a daily dose of 10 mg, it is at least equipotent to 160 mg of slow-release propranolol.¹

So this is a good result for acupuncture. The trial methods do not allow for a determination of the specific effects of acupuncture, but whatever the nature of the effects, acupuncture is at least as good as a modern pharmaceutical used for migraine prophylaxis. It may occur to readers that a vasoactive drug may be more appropriate
in migraine with aura, rather than in migraine without aura, as included in this trial, however, prophylactic drugs, particularly β-blockers, are used in all manner of headaches in clinical practice.

**Acupuncture and sumatriptan for migraine attacks (n=179)**


**Summary**
The objective of this trial was to investigate whether acupuncture is superior to placebo and equivalent to sumatriptan for the early treatment of an acute migraine attack. It was a randomised, partly double-blind (sumatriptan versus placebo) trial, which took place in two hospitals in Germany (one specialised in traditional Chinese medicine and one in the treatment of headache). The subjects were 179 migraineurs experiencing the first symptoms of a developing migraine attack. The interventions were traditional Chinese acupuncture, sumatriptan (6 mg subcutaneously) or placebo injection. The main outcome measure was the number of patients in whom a full migraine attack (defined as severe migraine headache) was prevented within 48 hours. In patients who developed a migraine attack in spite of early treatment, acupuncture and sumatriptan were applied a second time, whilst patients initially randomised to placebo received sumatriptan. A full migraine attack was prevented in 21 of 60 (35%) patients receiving acupuncture, 21 of 58 (36%) patients receiving sumatriptan and 11 of 61 (18%) patients receiving placebo (relative risk of having a full attack 0.79 (95% CI, 0.64-0.99) for acupuncture versus placebo, and 0.78 (95% CI, 0.62-0.98) for sumatriptan versus placebo). Response to the second intervention in patients who developed a full attack was better with sumatriptan (17/31 patients who received sumatriptan twice and 37/46 patients who had had placebo first) than with acupuncture (4/31). The number of patients reporting side-effects was 14 in the acupuncture group, 23 in the sumatriptan group and 10 in the placebo group. In this trial acupuncture and sumatriptan were more effective than a placebo injection in the early treatment of an acute migraine attack. When an attack could not be prevented, sumatriptan was more effective than acupuncture at relieving headache.

**Comment**
This is another good result for acupuncture, and the study seems to provide useful guidance for the physician in the treatment of acute migraine. A simple risk / benefit assessment, taking into account reported side-effects, suggests that acupuncture should be used first-line, and sumatriptan second-line in acute migraine headache. However, a more detailed look at the methods indicates that the circumstances of the trial may make the result less relevant to most UK NHS practice. The median duration of the acupuncture treatment was stated to be 1.5 hours.

**Deep needle insertion is superior to 2mm insertion in lumbar myofascial pain (n=42)**


**Summary**
The aim of this study was to compare the therapeutic effect of the superficial and deep insertion of acupuncture needles in the treatment of patients with chronic lumbar myofascial pain. A prospective randomised double-blind study of superficial and deep acupuncture was conducted. The study was conducted in the Pain Service Unit of the University of Padova. Forty-two patients with lumbar myofascial pain were randomised to equal groups (A and B). In group A, the needle was inserted into the skin at a depth
of 2mm, whereas in group B the needle was placed deeply into muscular tissue. The treatment was planned for a cycle of eight sessions. The intensity of pain was evaluated with the McGill Pain Questionnaire before and after treatment and at the 3-month follow-up examination. Although at the end of the treatment there was no evidence of significant statistical differences between the two different groups, pain reduction was greater in the group treated with deep acupuncture. A statistical difference existed between the two groups at the 3-month follow up, with a better result in the deeply stimulated group. The authors suggest that the results indicate that deep stimulation has a better analgesic effect than superficial stimulation.

Comment
Acupuncturists have been waiting for a trial such as this for some time. Whilst deep needling has been compared with superficial needling in previous trials, the superficial needling is generally off acupuncture points and meridians with the intention of being a minimally active sham or placebo. In this trial the same points, or types of points, were used in both groups with therapeutic intention.

The points used were a combination of formula acupuncture points and individualised trigger or tender points. The acupuncture points used were midline points: EX19 (Shiqizhui) and GV6 (Jizhong); and bilateral points: GB34 (Yangligquan), BL54 (Weizhong), and BL62 (Shenmai). In addition to these, four trigger points were selected from the lumbar, gluteal and calf regions. If trigger points were not found, the most tender points in these areas were selected.

Randomisation was performed using a random number table, and subjects and observer were masked, but withdrawals were not discussed, so this trial scores four out of a possible five for internal validity on the Jadad score.

One limitation of the study was that the authors did not define what they meant by myofascial pain or trigger points. A further limitation was the number of subjects included. However, despite these limitations, the study certainly suggests that deep needling has some advantage over superficial needling in a certain low back pain population.

Deep needle insertion is also superior to 2mm insertion in shoulder myofascial pain (n=44)


Summary
This is a randomised clinical trial in the same vein as that above. It was carried out on 44 patients belonging to two groups of 22 each, suffering from shoulder myofascial pain: group A: superficial acupuncture; group B: deep acupuncture. All of them were subjected to the same model of treatment with 13 needles and the treatment of the most painful four trigger points (TrPs) found in the shoulder area. In group A patients, the needles were inserted into the skin at a depth of 2mm over the acupuncture points and TrPs. In group B patients, the needles were placed deeply both in the muscular acupuncture points and in the TrPs. The treatment was planned for a cycle of eight sessions, the first four to be performed twice a week, and the last four performed weekly. The intensity of pain was evaluated with the McGill Pain Questionnaire before beginning the therapy, at the end of the therapy, and at follow-up after 1 and 3 months. Both techniques had efficacy in controlling pain. A statistically significant difference arose between the two needling techniques at the end of the treatment and at the follow up after one and three months. Deep acupuncture was better at all times and this underlines the importance of stimulating afferent nerves in muscle for the control of pain with acupuncture.

Comment
This study was similar to the last; however, in addition to a lack of discussion of withdrawals, there does not appear to have been any masking. This means that the Jadad score is only two out of five, confining the trial to the already large number of low quality acupuncture trials.

Having said that, both groups received a
genuine form of acupuncture, so there was unlikely to be a difference in the non-specific effects of the two interventions. Of course, a masked observer would have reduced the likelihood of measurement bias.

As in the study on lumbar myofascial pain the authors do not define what they mean by myofascial pain. However, the inclusion and exclusion criteria were quite comprehensive, and with the exception of rotator cuff tendinopathy the subjects included were all likely to have predominantly myofascial pain.

A standard formula of points were used: SI3 (Houxi), SI9 (Jianzhen), LI11 (Quchi), LI15 (Jianyu), TE14 (Jianliao), TE15 (Tianliao), and GV14 (Dazhui).

Acupuncture for pain in labour (n=210)


**Summary**

The aim of this study was to assess whether acupuncture could be useful for pain relief in labour and to look at possible effects of acupuncture on the progress of labour. In a controlled, single blind study, 210 healthy parturients in spontaneous, active labour at term were randomly assigned to receive either real acupuncture or sham acupuncture. Visual analog scale assessments were used to evaluate the subjective effect on pain. The objective outcome measure was the need for analgesic medication in each group. There were significantly lower mean pain scores and significantly less need for pharmacological analgesia in the study group compared with the control group. The women given real acupuncture spent less time in active labour and needed less augmentation than the control group. A secondary outcome of acupuncture was a shorter delivery time, which may be explained by the reduced need for epidural analgesia.

**Comment**

This was a large and relatively high quality trial, and only the second RCT of acupuncture in labour. The first, by Rannero et al, was reviewed in a previous issue of *Acupuncture In Medicine*.

The sham acupuncture was described as ‘minimal’, and was performed away from classical acupuncture points. This was likely to be superficial needling. Whether or not such needling occurs at or away from classical points is probably not as significant as the depth of needling in terms of the physiological stimulus.

An attempt was made to use a masked observer, but this was not performed consistently, so the trial could not claim to be ‘double-blind’. Randomisation and dropouts were described, so the Jadad score is three out of a possible five. This would have been the same score, however, if there had been no attempt to blind the subjects, so there is some limitation to the use of this score of internal validity, without modification, in acupuncture trials.

Between 2 and 12 points were used, and ‘de qi’ was elicited in the real acupuncture group. Most needles were taped down and left in place until delivery, conversion to conventional analgesia, or for at least 20 minutes. The points used in the real acupuncture group were among the following: GV20, HT7, LU7, LI4, ST29, ST30, BL32, BL34, ST36, GB34, GB41, SP6, SP8, KI3, LR3, BL60, BL67.

**Reference list**

Acupuncture for nocturnal enuresis (n=15)


Summary

This study was designed to clarify the clinical usefulness of acupuncture as a treatment option for monosymptomatic nocturnal enuresis, and evaluate the mechanisms of its effect. Subjects comprised 15 patients (10 males, 5 females) with monosymptomatic nocturnal enuresis who were treated by acupuncture using a disposable stainless steel needle (0.3 mm in diameter, 60 mm in length) inserted into bilateral BL33 (Zhongliao) points on the skin of the third posterior sacral foramina and rotated manually for 10 minutes reciprocally. Bladder capacities and number of wet nights per week were compared before and after treatment. Patients in whom wet nights decreased 50% or more compared with the baseline were considered responders. Nocturnal enuresis improvement rates following acupuncture treatment were 40% (6/15) just after treatment and 47% (7/15) 2 months after. In six responders, just after treatment the nocturnal bladder capacity (NBC) increased significantly, from 201 ml to 334 ml (p<0.05). No side-effects were seen throughout the treatment period. The authors concluded that acupuncture may be beneficial in the treatment of monosymptomatic nocturnal enuresis by increasing NBC.

Comment

This is a small cohort trial on 15 patients aged 6 to 18 years. The treatment was fairly simple, with only a single point needled bilaterally. The point, BL33, would have stimulated the S3 myotome, and therefore was appropriate in terms of the segmental innervation of the bladder. The needles were inserted 50 to 60mm, close to the periosteum of the third sacral foramina, and were stimulated for 10 minutes. This sounds like quite a strong sensory stimulus, but all the patients tolerated the treatment, and the majority were aged 6 to 11 years.

The 47% response rate is similar to that in a previous cohort study by Bjorkstrom et al. In the latter trial 11 of the cohort of 24 responded to electroacupuncture treatment.

So the response rate in monosymptomatic nocturnal enuresis appears to be between 1 in 2 and 1 in 3 subjects. The next step must be to perform a randomised controlled trial to determine whether the effect is specifically related to needle insertion. It may be difficult to recruit sufficient numbers in a single centre, so a multicentre trial might be the most sensible option.

Reference


Acupuncture for reflex sympathetic dystrophy


Summary

Patients with stage II reflex sympathetic dystrophy syndrome (RSD, algodystrophy) often describe a sensation of beneficial warmth in the affected limb when receiving acupuncture treatment. In a case control study of 10 patients with unilateral algodystrophy stage II in either arm or leg, and 10 healthy age and sex-matched controls, the authors investigated whether acupuncture has an effect on blood flow and correlated this with a clinical assessment.

Acupuncture was given to the affected limb in patients, and to the same limb on the appropriate side in volunteers. Treatment was LI4, LI10 and LI11 if the arm was affected, or ST29, ST36 or ST41 if the leg was affected. Blood flow was measured by duplex sonography (which combines ultrasound imaging and laser Doppler blood-flow
measurement) of either brachial or femoral artery, before, during and after the third session of acupuncture. In patients and health volunteers, both ipsilateral and contralateral limbs were measured by a trained angiologist. Patients went on to receive 10 treatments altogether.

Blood flow increased significantly by +31.1% (one-tailed, p=0.024) in the patients’ affected limbs (by algodystrophy) compared with the patients’ untreated (contralateral) limb. It was also elevated compared with the controls’ treated limbs +23.9%, (p=0.046). The corresponding data after acupuncture were +29.5%, (p=0.057) and +38% (p=0.014). All but one patient reported improved symptoms. However, only improvement in subjective function, not subjective pain, was positively correlated to the increase in blood volume flow.

In patients with algodystrophy stage II, a significant increase of blood flow was attributed to acupuncture and was correlated to functional improvement.

**Comment**

It is common to experience local warmth during or after acupuncture, and these authors suggest that this might indicate vasodilation, which could improve symptoms. Others might argue that vasodilation is more likely to give rise to feelings of cold since it leads to increased radiation of heat from the skin. This debate should make us recall the old adage ‘Don’t think – do the experiment’, which is what happened here. The researchers’ essential questions were whether acupuncture is associated with a greater improvement in blood flow in a limb that is affected by RSD than in a healthy control limb in the same patient, or than in a treated limb in a healthy control. Individual values are reported and when they are closely inspected a clear trend appears from the general noise and huge variation between individuals: a distinct rise in blood flow occurs only in the treated limb and only in the RSD patients, not the controls. Increases were obvious in 7 out of 10 patients during and after acupuncture. The observation is shown by the statistical analysis to be significant. However, the increases in blood flow were not correlated with any sustained feelings of warmth at the end of treatment. Those with greater increases in blood flow were more likely to have improved function, but not improved pain. There were three patients whose pain was ‘much better’ or ‘almost symptom-free’ by the end of treatment, and four others who were better than before. The message, then, is that acupuncture appears to be useful in reducing pain in some patients with RSD but the improvement does not seem to be through the changes in blood flow.

Reflex sympathetic dystrophy is one of those diseases that produces so much misery that people keep changing its name in the vain hope that this throws new light on the cause and leads to effective treatment. Causalgia, sympathetically maintained pain, and regional pain syndrome have all been tried, and still treatment remains symptomatic and supportive rather than addressing the cause. It appears that acupuncture might have something to offer, and a previous controlled trial published in this journal supports that, in addition to the present study.

**Adrian White**

**Reference**

The hypoalgesic effect of acupuncture on pressure pain threshold is not predictable by the segment stimulated (n=13)


Summary

The object of this study was to investigate the contribution of two principal features that underlie traditional Chinese acupuncture: site specificity and application of needle manipulation. Thirteen volunteers completed a randomised, subject and assessor blind, repeated measures study involving five interventions. Pressure pain threshold (PPT) was measured with an algometer, before and after intervention at 10 sites (acupoints and non-acupoints) across the body. The interventions were deep needling, with or without manual needle rotation, applied to the acupoint LI4 or to a non-acupoint located on the ulna side of the second metacarpal. Inactive laser to LI4 was used as a control. All interventions were administered for 21 minutes. The primary outcome measures were percentage change in PPT from preintervention baseline at the 10 sites during the 18 minutes immediately following each intervention. Statistically significant increases from preintervention PPT means were obtained at all 10 sites following needling of LI4 with manipulation compared with one site after needling LI4 without manipulation. Needling the non-acupoint led to statistically significant increases at six sites when manipulation was present compared with none in the absence of manipulation. No significant changes in mean PPT followed inactive laser. Needling LI4 with manipulation produced mean increases that were statistically significantly greater than those for the other interventions with one exception: needling the non-acupoint with manipulation was as effective as needling LI4 with manipulation at one measurement site only. The authors concluded that both manipulation and site of needling contributed significantly to the elevation of PPT following acupuncture. They went on to suggest that the distribution of effects on PPT did not support either neural segmental or Traditional Chinese Medicine channel theories. Psychological and physiological non-specific effects appeared to play a minimal role in changes to PPT.

Comment

This is a small but interesting study performed within the context of a larger experimental trial. The main focus of the investigation appears to be the difference between deep needling at a ‘real’ acupuncture point and a non-point, and the effect of needle manipulation. As a secondary issue the authors observe whether their results fall into a pattern determined by meridian or segmental concepts.

In terms of the site of stimulation and the strength of needle stimulus, the results are as expected. The greatest hypoalgesic effect is seen with needle manipulation at a classical point (LI4). Next on the list is needle manipulation at the non-point, followed by LI4 without manipulation, and the non-point without manipulation did not appear to have much effect on PPT.

When the results are interpreted in terms of sites of hypoalgesia, there are at least two problems with the study. First, it seems that dematomes were used to gauge the segments stimulated. The segment noted in the paper for LI4 and the non-point is C5, however, needle insertion at these sites in the hand probably have their greatest physiological effect in the myotomal segments, i.e. C8/T1. Secondly, pressure pain threshold (PPT) is also unlikely to be mediated by skin afferents in most of the sites tested. Indeed the structure that first registers high threshold mechanical stimulation may vary with individuals and posture at some points. For example, the pressure stimulus on PPT testing at CV12 may be maximal in the myofascial layer if the abdominal wall muscle...
Acupuncture seems to have a positive influence on immune function (n=22)


Summary
Little is known about the influence of acupuncture treatment on the phagocytic immune system. This trial was performed to examine whether multiple acupuncture treatment affects the respiratory burst (RB) of neutrophils, a recognised measure of their cytotoxicity. This was a placebo-controlled single-blinded study. Eleven volunteers were treated bilaterally with standard needles (real) at LI11, and 11 volunteers with placebo needles (placebo) at the same point. Treatments were performed for 30 minutes each twice a week for four weeks, eight times in all. The standard needles were manipulated until needle sensation (de qi) developed. Blood samples were drawn before the treatment course (baseline), 48 hours after the fourth treatment (follow-up 1) and 48 hours after the last treatment (follow-up 2). Blood samples were drawn. The primary outcome measures were RB and plasma beta-endorphin at each time point. In the real group there was a highly significant increase in the RB at follow-ups 1 (p=0.004) and 2 (p=0.007). Beta-endorphin levels decreased, but not significantly. In the placebo group there was a significant increase in the RB at follow-up 2 (p=0.048). In addition, at follow-up 2 a significant drop in beta-endorphin levels was observed (p=0.015). The authors concluded that the RB of neutrophils is significantly activated by a course of several acupuncture treatments. In addition, psychological effects and a placebo that was not totally inert may contribute to the findings in the placebo group which may be mediated by the endogenous opioid system.

Comment
There has long been interest in the potential immunomodulating effects of acupuncture, and previous research has measured changes in a variety of immune system markers. However, it has often been difficult to assess the clinical relevance of such changes.

This study claims to have controlled for any effects of expectation by using a non-penetrating sham, so it appears that the effects could be specific to needle penetration at LI11. It does not give any support, however, to the concept of point specificity, as this was not tested.

Should we start using LI11 clinically to promote immune function? This reviewer suspects that it is a little early to suggest such a thing. In their introduction however, the authors allude to the possibility of patients performing weekly self-application of needling at LI11. Certainly this is more practical, and likely to be more cost-efficient, than attending an acupuncture clinic, but more research into clinically relevant effectiveness is likely to be required before such an approach can be recommended.
Reports of Adverse Events & Related Papers

Prosthetic valve endocarditis attributed to acupuncture


**Summary**
Active prosthetic valve endocarditis (PVE) as a complication of acupuncture requiring valve surgery has not been reported previously. We report a case of PVE in a patient with Marfan’s syndrome as a complication of acupuncture, who underwent emergency redo aortic root and valve replacement with a homograft. The authors suggest that their report highlights the need for prophylactic antibiotics before acupuncture in patients with prosthetic valves.

**Comment**
This report gives limited details of the acupuncture administered. It states that the acupuncture was for back pain, and that it was administered six days prior to the onset of symptoms. The organism isolated from the removed prosthetic valve was Staph. aureus. This report is of concern to acupuncturists as it is the first case of endocarditis not apparently associated with indwelling needles in the ear. Current policy is not to recommend antibiotic prophylaxis for patients at risk of endocarditis when undergoing standard acupuncture therapy, but use of indwelling needles is to be avoided. This report casts some doubt over the current policy.

A paper to be published later in the volume will examine this issue further.
Acupuncture for reflex sympathetic dystrophy

Adrian White

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