Acupuncture in the Management of Herpes Zoster

Janet Boaler

This paper was presented at the BMAS spring meeting held in Warwick in April 1995

Summary
Although it has been demonstrated conclusively that anti-viral medication reduces the duration and intensity of the manifestations of acute herpes zoster, controversy remains concerning its effectiveness in preventing post herpetic neuralgia and patients with this distressing condition are often referred to Pain Clinics. The problem is likely to become more prevalent in the future due to the ageing population, particularly in those over 80 years of age.

Research, most of it uncontrolled so far, suggests that simple acupuncture starting in the acute phase, within 24-72 hours of the appearance of the skin eruption, could, if combined with anti-viral medication, produce a substantial reduction in the incidence and severity of post herpetic neuralgia. Further controlled clinical trials conducted at primary health care level are urgently needed.

Key words
Acupuncture, Herpes zoster, Low level laser therapy, Post herpetic neuralgia.

Introduction
In November 1993 the International Herpes Management Forum held its inaugural meeting in Monte Carlo, attended by 700 clinicians, researchers and academics of many nationalities (1). The consensus of opinion at the meeting was that the acute phase of Herpes zoster could be considerably reduced in intensity and duration by a 7-10 day course of anti-viral medication, which should be started within 48-72 hours of the appearance of the skin eruption to achieve maximal effect. Anti-viral agents should always be prescribed for Herpes involving the ophthalmic division of the trigeminal nerve to prevent ocular damage (2).

The effect of anti-viral agents on the incidence of post herpetic neuralgia (PHN) was less clear cut. There have been recent publications (3, 4, 5) noting a continued high incidence of PHN in patients over the age of 60; an increasing proportion of the population in Western countries.

Acute Herpes zoster presents at primary health care level and it is what happens there that determines the outcome in an individual patient. This can be adversely affected by the following factors:

a. late presentation
b. delayed diagnosis
c. inadequate treatment
d. poor follow-up.

In 1993 the charity “Help the Aged” held a phone in survey on the radio to the Jimmy Young Show on Radio 2 and Classic FM (6). It was aimed at people who had recently experienced shingles or were still suffering from the after-effects. The survey was monitored by a London GP, Dr Macnair. Over a 2 month period 555 people telephoned in. Although this was only a small sample, probably representative mainly of social classes 1 and 2, the results proved interesting and informative. For instance, as many as 77% had been unable to identify their complaint as being “shingles”. Although 42% presented to their GP within 48 hours of the onset of symptoms, 23% were not diagnosed as having shingles at the first consultation, and 26% of the total were referred to hospital. Despite 92% being prescribed treatment, only 19% of them received anti-viral medication such as acyclovir.

Under-treatment of the pain seemed to prevail, as a result of which 93% of the patients reported having suffered pain, which for 86% was difficult to endure. I had been led to believe that post herpetic neuralgia was almost non-existent in China due to prompt treatment in the acute phase by acupuncture. My attempt to confirm this during a visit to China in 1993 failed, as I was unable to make myself understood to medical staff at either the hospitals or the neighbourhood committee clinics, which are their equivalent of our primary health care level. However, it became apparent that most patients presenting with acute conditions at Chinese medical centres receive a 10 day course of either herbal medicine or acupuncture. This seemed to suggest that early, intensive treatment to control pain may prevent the development of PHN.

Returning home full of enthusiasm to put this theory to the test despite logistic difficulties, I asked general practitioners to refer patients with acute Herpes zoster to our hospital based acupuncture clinic (7) as soon as possible after diagnosis. It was impossible to start treatment within 48 hours of onset, which would have been ideal, and we were only able to provide 3-4 treatments at weekly intervals.
intervals. The treatment was in the form of a "surround the dragon" technique, in which superficial needling was performed enclosing the entire affected area.

Results of treatment of acute Herpes zoster

Our series was collected over the years 1992-5, mostly during the winter months of 1994 (Figure 1). It comprised 30 patients, 28 of whom were over 60 years of age. The two patients below 60 years improved and eventually became almost pain free, although one was still complaining of pain one month after onset, despite treatment. PHN is comparatively rare in patients below the age of 60, and I think it unlikely that acupuncture contributed much to their recovery, but may have accelerated it in one of the two patients. In the group over 60 years of age, 12 (43%) obtained considerable relief, 9 (32%) obtained some relief, and 7 (25%) continued to have severe pain; one patient became pain free after a month.

Patients were given 3 or 4 surround the dragon treatments and then discharged but recommended to ask their GPs to refer them back to the clinic if they developed post herpetic neuralgia. We attempted to follow up these patients by sending out a questionnaire after 6 months addressed to the patients, but received only 6 replies. However 2 or 3 of this group subsequently attended for treatment of post herpetic neuralgia, having been referred in the usual manner by their GPs. They were treated within 6 to 9 months of the acute episode and responded well to low level laser and/or acupuncture.

A trial by Gillingham in 1995 (8) suggests that improved results can be achieved by more intensive acupuncture treatment starting within 48 hours of onset. The concomitant prescription of low dose tricyclic antidepressant therapy at the onset, as described by Bowsher (9), might confer additional benefits in the prevention of PHN.

Post herpetic neuralgia

Following the introduction of low level laser therapy at the Poole General Hospital Acupuncture Clinic by Glenie-Smith in the late 1980s, we proceeded to treat patients referred with PHN along the lines set out in his 1993 paper (10). The device used was the Omega 3 ML, which has a single probe with a wave length of 820 nm at a power output of 50MW, and a cluster probe of 31 laser outputs with wave lengths varying from 600-900nm. The single probe provides greater penetration, producing effects up to 4cm below the surface when used in the contact mode.

This was used in PHN to treat the paraspinal segmental points affecting the thoracic and lumbar dermatomes, and the cervical region overlying the descending nucleus of the trigeminal nerve in the case of trigeminal PHN. The affected area was treated using the cluster probe, as a mixture of wave lengths is more beneficial in the treatment of the subcutaneous network of peripheral nerve fibres. The total treatment time was 10 to 15 minutes. We aimed to provide 8 to 12 treatments, weekly to begin with and extending to 2 week intervals depending on progress. Low dose antidepressant therapy was introduced for most patients, if not previously in use, as it is well established that this is indicated in the management of neuropathic pain of any type and also that it can boost the effect of stimulation analgesia. However it is surprising how many patients complain of side effects, even with such low dosage as amitriptyline 10mg. Over sedation proved to be the main complaint and some patients found dothiepin 25mg to be preferable in this respect. If no improvement was achieved by the fourth treatment, acupuncture was introduced in addition, using endorphin raising points such as LI4 and LR3 with ST36 and 44 in the case of trigeminal neuralgia.

Low level laser therapy can sometimes cause a temporary increase in pain following the first treatment, which some patients found unacceptable. These, together with patients who expressed a preference for acupuncture treatment comprised an "acupuncture only" group.

We thus ended up with three groups (Figure 2), Group 1 (6 patients) treated by acupuncture alone, Group 2 (39 patients) treated with low level laser therapy, and Group 3 (11 patients) who had not responded to low level therapy alone and had been transferred from Group 2 to receive a combination of low level laser therapy augmented by acupuncture. All groups were prescribed low dose antidepressant therapy if slow to respond, either amitriptyline 10-20mg or dothiepin 25mg. In Group 1, the acupuncture only group, treatment was given using local points on the opposite side of the body, combined with endorphin raising points as already described. Two of the 6 patients obtained substantial relief, two were slightly improved and two showed no change after 6-8 treatments given at weekly intervals for the first three, extending to 2 to 4 weeks subsequently. The best results were achieved in Group 2, treated with low level laser therapy only, as 19 obtained substantial pain relief and one...
Figure 2. Post herpetic neuralgia in patients over 60: acupuncture and low level laser results 1992-5.

patient became pain free. Another 14 obtained some relief, boosted by tricyclic anti-depressant therapy and, in some instances, by the application of benzydamine cream. Of the 11 patients who had been transferred as non responders to form Group 3 from Group 2, a further two obtained substantial benefit and five had some improvement.

Conclusion
Once post herpetic neuralgia has set in, the earlier treatment can begin the better the results. By and large acupuncture alone is disappointing compared with low level laser therapy, which both Moore (11,12) and Glennie Smith (10) have found to be effective. Further research, which could be double blind using a dummy device in one arm of a trial, is required.

It should be emphasised that low level laser therapy does not produce pain relief via the nervous system in the same manner as acupuncture. The effect is dose dependent and comes about by the acceleration and resolution of the inflammatory response. This is accompanied by vasodilatation and enhanced lymphatic drainage. A delayed or secondary response, again dose dependent, results in an increase in endogenous opioids. This is described in more detail by Moore et al in their 1991 paper in the International Journal of Optoelectronics (13).

Literature Review
There is a paucity of worthwhile papers on the use of acupuncture in the management of Herpes zoster. However, the following are of interest:

This paper (14), first presented at the 4th European Congress of Anaesthesiology held in Madrid in 1974, relates to the use of acupuncture in the treatment of 24 patients presenting with acute Herpes zoster, 12 of whom were over 60 years of age. It is a unique series on account of the acupuncture points selected, Gall bladder 20 bilaterally. These were the only points used whichever part of the body was involved. The justification for this point selection was that GB.20 (Fengchi) was described by Mann (15) as being “vaso-sympathetic”. This was at a time when local analgesic sympathetic blocks were commonly used in the treatment of acute Herpes zoster in Denmark. The needles were stimulated to elicit needling sensation (de qi) and were left in for 20 minutes. The 24 patients had a mean duration of pain of 5.4 days from the start of treatment. An average 4.2 treatment sessions were required to render the patients pain free, with treatment given daily or on alternate days.

This paper is of particular interest as it indicates that early, frequent treatment reduces the number of treatment sessions required and accelerates a good response. Neilsen concludes by stating that 75% of the elderly subjects were pain free within two weeks of the appearance of the skin eruption.

A single blind, randomised, controlled study of auricular and body acupuncture compared with placebo (mock TENS) was performed on 62 patients, all over 60 years of age, with well established post herpetic neuralgia (16). Needling was carried out weekly with a maximum of eight 10 minute treatments and mock TENS was applied in the same manner. There proved to be no significant difference in the two treatments with regard to pain relief, although seven patients in both the acupuncture and the placebo groups had achieved significant improvement in their pain level at the end of treatment (8 weeks). The conclusion was that acupuncture is of little value as an analgesia therapy for post herpetic neuralgia.

In a small series of 20 patients, low level laser therapy (LLLT) was used in the treatment of post herpetic neuralgia of at least 6 months duration (11). This was carried out following anecdotal reports of the effectiveness of low level laser in various types of neuropathic pain. A double blind, cross over method was employed with two groups of 10 subjects with a mean age of 69 years. The results clearly demonstrate a significant reduction in the intensity and duration of post herpetic neuralgia, with LLLT being compared with placebo in the form of a dummy laser head. No acupuncture was used, but the paper is of interest as LLLT may prove to be more effective than acupuncture for post herpetic neuralgia.

Only eight patients are described, three with acute Herpes zoster and five with post herpetic neuralgia, who were treated with electroacupuncture (17). All the patients, apart from one, were over 60 years of age. Acupuncture was given using a “surround the dragon” technique incorporating segmental points on the side of the lesion. Points LI4 and LR3 were also used bilaterally. The intervals between treatments varied from 1-4 days. All three acute cases obtained complete pain relief after 1-7 treatments, which continued during a follow-up period of variable length, in one case for as long as a year. Four of the five patients with post herpetic neuralgia also obtained fair to good pain relief with treatments given at 3-4 day intervals, with a maximum of 7 treatments.


This is an uncontrolled pilot study (8) of the use of acupuncture for patients with acute Herpes zoster, and its effect, if any, on the subsequent development of post herpetic neuralgia. Fifty patients with acute Herpes zoster diagnosed within the previous 16 days were treated daily with a simple surrounding needle technique. The average number of treatments required to eradicate the pain was 4.6 and the success rate was 90%. Of the 43 patients who could be followed up, 88.4% reported that they had experienced no pain since their last acupuncture treatment and none had taken analgesics. Twenty six of these subjects were over 60 years of age and therefore in the high risk category for post herpetic neuralgia. Only two of these experienced post herpetic pain. Dr Gillingham is planning a prospective trial to include placebo and non-treatment groups.

Conclusion

These papers seem to confirm my impression that acupuncture has little to offer in the management of post herpetic neuralgia, where the neuritis appears to result in almost irreversible damage to the posterior root ganglion extending to the posterior horn. Auriculotherapy aimed at stimulating the spinal descending inhibitory tracts, perhaps combined with an SSRI type anti-depressant agent, may be worth investigating.

However, I have no doubt that simple acupuncture, in the form of a surrounding the dragon technique, given as early as possible in the acute phase of Herpes zoster would hasten recovery and reduce the occurrence of post herpetic neuralgia. This could be carried out by nurses in the primary health care setting, maybe limiting the treatment to the vulnerable elderly sufferers.

A controlled trial is needed, which would have to be multi-centred, as most GPs do not see more than two or three patients a year presenting with acute Herpes zoster within the over 60, at risk age group.

Janet Boaler MB BCh FRCA
Medical Acupuncture Clinic
Poole General Hospital
Poole, Dorset (UK)

References

Acupuncture in the management of herpes zoster

Janet Boaler

Acupunct Med 1996 14: 80-83
doi: 10.1136/aim.14.2.80

Updated information and services can be found at:
http://aim.bmj.com/content/14/2/80

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://www.bmj.com/company/products-services/rights-and-licensing/

To order reprints go to:
http://journals.bmj.com/content/subscribers

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/