A 54-year-old woman with degenerative back pain

Claire M Tuck

Back pain is a common symptom: up to 70% of UK adults experience this symptom by the age of 60 and most have moderate to severe pain. Back pain accounted for 12% of consultations to traditional acupuncturists in 2001 and is one of the most common reasons for consultation with an acupuncturist. This case report concerns a 54-year-old woman with metastatic breast cancer and degenerative lower back pain, which remained painful despite intensive pharmaceutical management and facet joint injection and was ultimately successfully managed with two 30 min acupuncture treatments 2 weeks apart, using eight points on the BL meridians. Acupuncture treatment using tender points was later trialled for neuropathic pain secondary to local recurrence in her mastectomy scar, however this was unsuccessful and inpatient admission for further intensive pharmaceutical management was required.

INTRODUCTION

This report details the case of a patient receiving palliative care whose degenerative back pain failed to respond to multiple different analgesics but responded rapidly to acupuncture.

Case report

A 54-year-old woman, was diagnosed with Grade 2 ductal carcinoma of the right breast in May 2006. She underwent a right mastectomy and axillary clearance in October 2006, followed by local adjuvant radiotherapy. Treatment became palliative when multiple small lung metastases and local scar recurrence in the form of sub-centimetre skin nodules were confirmed by CT scan in July 2007. She then received nine out of 10 cycles of Taxol chemotherapy, which was discontinued in October 2007 due to sepsis secondary to a urinary tract infection.

Her past medical history included chronic headaches, ischaemic heart disease and type II diabetes mellitus. She had previously been diagnosed with myalgic encephalopathy and had been confined to a wheelchair for many years. She could walk short distances with assistance.

I met the patient when she attended the day hospice, which she did on a weekly basis. She described 6 weeks of pain, originating in her coccyx and spreading to her lumbar and lower thoracic spine. She denied any trauma or awkward movements. The pain was described as a “pressure” which was intermittently sharp and did not radiate. On the visual analogue scale (VAS), the pain was 7/10, but could be as severe as 10/10. It was exacerbated by sitting/standing/lying flat and relieved by lying on either side. Immediate release oral morphine as required gave her moderate relief from the pain—she required an average of three doses per day for breakthrough pain.

Recent imaging included a bone scan in May 2008, a CT head/chest/abdomen in October 2007 and an MRI whole spine September 2006: these showed minor cervical and lower lumbar degenerative changes.

A neurological examination was unremarkable aside from a pre-existing subtle decrease in lower limb power. Palpation of the vertebrae and paravertebral muscles below the level of T8 induced pain—multiple trigger points were noted, mainly in the lumbar area. She displayed no signs or symptoms of spinal cord compression. A further MRI scan of her whole spine was performed which showed degenerative changes only.

Given her history, examination and imaging, I felt that she was most likely experiencing non-specific lower back pain. The NHS Clinical Knowledge Summary for back pain describes treatment of non-specific low back pain, and is similar to the WHO analgesic ladder: I followed this guideline when treating the patient’s back pain. She was already taking maximal doses of paracetamol, a non-steroidal anti-inflammatory drug, gabapentin 900 mg four times a day and amitriptyline 50 mg nocte, which are recommended in the Clinical Knowledge Summary.1 The patient was also taking large doses of modified release opiate (MST Continus 150 mg twice daily) as well as immediate release opiate as required (Sevredol 40 mg 4 hourly as required).

I titrated her medication, including gradually switching and increasing her opioid to Oxycontin 100 mg twice daily and Oxnorm 35 mg 4 hourly as required. Opioid rotation may be used when patients develop toxicity symptoms from opioids, as different patients may tolerate different opioids better than others.2 I also initiated first one and then two lidocaine 5% patches over her lumbar region, from 09:00 to 21:00. Anecdotal reports and some randomised controlled trials (RCT) suggest they are tolerated well and may be useful in neuropathic and bony pain.3 Her lumbar region facet joints were also injected with steroid by an anaesthetic consultant at the Pain clinic. These interventions caused her pain score to fall to 2/10 (VAS) and her pain score remained at this level for approximately 2 weeks. She became quite sleepy with the increasing doses of opioid, despite opioid rotation.

Unfortunately, despite these interventions, by the following month, the patient’s lower back pain had worsened and was on average 7/10 (VAS), requiring 4–5 breakthroughs of immediate release oral morphine per day. She had also gained minimal relief from a heat pack.

I completed the BMAS Foundation Acupuncture Course in April 2008 and have been practicing in an inpatient hospice unit and day hospice unit since then. The patient had undergone acupuncture for neck pain 15 years previously but could not recall much about it. She had no contraindications to acupuncture. My aim was to control her pain—as she was experiencing opioid side effects I felt that a trial of acupuncture, as a minimally invasive treatment with little in the way of side effects was worth going ahead with. I explained that I would be inserting eight thin solid needles several centimetres deep into the muscles in her back and showed her a needle prior to insertion. There was no blinding or sham acupuncture involved. I performed acupuncture for 30 min using dry needling at trigger points in the following locations with 0.25 x 30 mm Seirin needles: BL22 bilaterally, BL23 bilaterally, BL25 bilaterally and BL26.5 bilaterally (halfway between BL26 and BL27)—all points were needled 2 cm deep perpendicular to the skin.

Insertion of the needles was moderately difficult as her muscles were tense, although I was able to insert them to the desired depth. This reproduced her pain although she was able to tolerate the needles for 30 min before I removed them—there was slight muscle spasm noted as I was removing the needles and no bleeding. I did not use any moxibustion, electroacupuncture, cupping or stimulation.

Her pain had been 7/10 (VAS) immediately prior to the acupuncture—she had had a further immediate release oral morphine breakthrough just prior to the treatment. She felt the pain had fallen to 5/10 (VAS) immediately after the treatment.
although the fall in her pain score may have been due to the immediate release oral morphine.

I saw her 2 weeks later and the pain was much better—I had planned to see her the following week but she was unable to attend this appointment. She had woken up the following morning feeling better and the pain score had fallen to 2/10 (VAS) that day—she described the pain as “niggles”. She was able to get out of the house more. I performed a further session of acupuncture that day, using the same duration and points as before. Her back pain was 2/10 (VAS) immediately prior to the treatment and fell to 1/10 (VAS) following the treatment. The patient’s disease continued to progress and she died as a hospice inpatient almost 1 year after our initial meeting, however, she did not require any further acupuncture treatments for lower back pain and continued to use 1 lidocaine 5% patch over her lumbar region, as well as multiple additional analgesics, primarily for unrelated pain.

Four months prior to our first meeting, she had already developed a dysesthesia and a “raw, tight pressure pain” in and inferolateral to her scar recurrence—this was felt to be neuropathic in nature. She initially described this pain as 1/10 in severity (VAS) and was minimally aware of it. Unfortunately, 1 week after the acupuncture had relieved the back pain, the pain in the scar recurrence worsened to 3–4/10 (VAS). I treated this with six 0.16×30 mm Seirin needles to a depth of 0.5 mm percutaneously to level off, however, I was deciding to use the ‘surrounding the dragon’ technique close to the scar line.\(^5\) Her scar pain was 3–4/10 (VAS) immediately prior to and after the treatment and did not improve either immediately or within 2 weeks following local acupuncture.

Her amitriptyline was subsequently titrated to 100 mg nocte, and in view of her sleeplessness and unresolved pain, I increased and switched the opioid over several weeks to a 275 mcg/h fentanyl patch (equivalent to 945–1034 mg oral morphine in 24 h).\(^6\) Transdermal fentanyl is not an ideal lone opioid for patients requiring frequent opioid titration as it takes 20–72 h after patch application for peak fentanyl concentrations to be reached and 12–24 h for the serum fentanyl concentration to level off,\(^5\) however, I was seeing the patient on a weekly basis and felt that this would allow ample time to make dose adjustments as needed. She also received a course of oral flucloxacillin for local scar infection, local intrasite dressing changes, local application of a TENS machine, 2 lidocaine 5% patches to the area and a 10 week course of 40 Gy radiotherapy in 10 fractions, given as one fraction per week. Although the pain did improve towards the end of the course of radiotherapy, scar breakdown soon caused the pain to worsen and she ultimately required admission to a hospice inpatient unit for intensive pharmaceutical pain control (figure 1).

**DISCUSSION**

Back pain is a common symptom: up to 70% of UK adults experience this symptom by the age of 60 and most have moderate to severe pain.\(^7,8\) An equal distribution is seen across the sexes and the peak incidence is between age 40 and 60.\(^5\) Back pain accounted for 12% consultations to traditional acupuncturists in 2001\(^9\) and is one of the most common reasons for consultation with an acupuncturist.\(^10\)

Acupuncture has been shown to be an effective treatment for chronic low back pain,\(^11\) with a meta-analysis of 33 studies showing that acupuncture was significantly more effective than sham treatment and no additional treatment—less data is available for acute low back pain.\(^12\)

I chose the bladder meridian for treatment of the patient’s lower back pain, as her main trigger points fell upon this meridian: in addition, BL23 and BL25 have been described in the literature as being of use in the treatment of non-specific lower back pain.\(^10\) The points used allowed me to use local needling for her trigger points. I was pleased that only two sessions were required to control her lower back pain—a review of 25 RCTs of acupuncture treatment regimens for non-specific lower back pain in clinical studies showed a median number of eight treatment sessions were needed: this review also showed the median number of points used was 10 and the median duration of needle retention time was 20 min,\(^10\) a shorter duration of time which the needles were left in place for, but also more points and sessions than the patient had required. Alternative local and distal acupuncture points described in the literature for back pain include BL40, BL54, BL60, GB30, GB34, GV3, GV4, GV26, KI3, SI3 as well as tender points.\(^10\)

Patients taking strong opioids and adjuvants have been previously documented to derive an analgesic effect from acupuncture.\(^13\)

As the patient’s neuropathic pain was so well localised to her mastectomy scar, I decided to use the ‘surrounding the dragon’ technique close to the scar line.\(^5\) Unfortunately, 2 weeks after one session of local acupuncture her pain had not diminished. Following discussion with the patient, I did not perform further acupuncture. There were several reasons why we did not pursue another session(s). The ‘scar acupuncture’ had not given results as quickly as the ‘back acupuncture’, also, an alternative analgesic modality in the form of radiotherapy was being offered and in addition, the acupuncture and the associ-

![Figure 1: Sites of the patient’s pain](http://aim.bmj.com/)

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**Figure 1** Sites of the patient’s pain
ated wheelchair transfers to a bed were time-consuming and reduced the time the patient was able to spend socialising with other day hospice patients. It is possible that when her back pain decreased, she became more aware of the scar pain, which may have seemed comparatively minor in relation to the lumbar pain.

Current literature suggests that there is little evidence for acupuncture as an effective treatment for neuropathic pain—this is more of a lack of evidence in acupuncture’s favour as opposed to high-powered RCTs demonstrating a lack of efficacy for acupuncture as a treatment for neuropathic pain.\(^1\)\(^2\)\(^3\) A Cochrane Library systematic review looked at seven studies (three RCTs, four uncontrolled studies), five of which showed that acupuncture gave relief from cancer-related pain.\(^1\)\(^2\) This review concluded that acupuncture was not currently indicated for cancer pain, although did recommend that adequately powered RCTs are needed to provide a more solid evidence base for acupuncture and neuropathic pain.

**Case report**

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These results show mixed results for the efficacy of acupuncture as a treatment modality for neuropathic pain. It is possible that when her back pain decreased, she became more aware of the scar pain, which may have seemed comparatively minor in relation to the lumbar pain.

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An additional RCT (n=70) focused on patients experiencing pain secondary to abdominal scar tissue—>70% patients reported excellent to good global pain relief following 20 sessions of acupuncture over a 4 week period compared to <10% of patients in the sham treatment group.\(^1\)\(^2\) Further data (n=20) from the SKH Aung Medical Acupuncture Practice, Edmonton, from 1987–1991 revealed that 30% of oncology patients with scar pain reported an excellent response and 40% reported a good response to acupuncture treatment.\(^1\)\(^2\)

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