Acupuncture for Carpal Tunnel Syndrome

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Summary
Acupuncture was used to treat a 51-year-old 'lollipop lady' (school crossing patrol officer), with severe carpal tunnel syndrome (CTS) affecting her dominant hand, and co-existing cervical spondylosis. I postulate that her symptoms were work related. She responded well to acupuncture, which provided good symptomatic treatment rather than cure and allowed her to continue working whilst she awaited surgical release.

Keywords
Acupuncture, carpal tunnel syndrome.

Presentation
My patient presented with a five-year history of pain in the right wrist, forearm, shoulder and neck, and paraesthesiae affecting fingers of right hand (excluding little finger). She was right handed. In 1996 carpal tunnel syndrome (CTS) was diagnosed when she presented with classical symptoms of pain and paraesthesiae affecting her right hand in a median nerve distribution. She was treated with physiotherapy, bendrofluazide and a night splint, but there was limited benefit. In 1998 she complained of pain in both shoulders and was treated with non-steroidal anti-inflammatory drugs (NSAIDs), a cortisone injection and further physiotherapy. In 1999 the pain in her right wrist and forearm became more severe and she also complained of pain in her right shoulder and the right side of her neck. A clear link with her occupation was made. Her symptoms were exacerbated by holding her 'lollipop' for long periods and were significantly better during school holidays and weekends.

Treatment
This was performed in my general practice acupuncture clinic, weekly at first, and then every two or three weeks according to her symptoms.

Standard needles without introducers were used (0.25x25mm). A single needle was inserted into the transverse carpal ligament at the distal wrist crease, at the point of maximal tenderness. Minimal stimulation was used and the needling time was no longer than 5 minutes. Additional needles were inserted at LI4, LI11, GB21, LI14, TE14 and LI15 on the affected side.

Initially in 1999 she had a course of eight treatments along these lines, and her symptoms settled. A year later she complained of increasing pain affecting the right side of her neck and shoulders. X-rays showed changes consistent with cervical spondylosis. A further course of acupuncture gave good symptomatic relief. Shortly after this she underwent nerve conduction studies in our local Rheumatology department. These confirmed significant median nerve dysfunction. Subsequently she underwent successful carpal tunnel decompression, became symptom free, and is now back at work.
Discussion
This lady had proven CTS and cervical spondylosis and all her symptoms were exacerbated by her occupation.

Surprisingly CTS is a relatively new clinical entity, first described by Brain et al in 1947. It principally occurs in middle-aged women and is caused by compression of the median nerve in the 'carpal tunnel' at the wrist. Classical symptoms are pain in the arm and paraesthesiae affecting the thumb, index, middle and radial side of the ring finger. The pain can often reach as far as the shoulder. Symptoms are usually nocturnal and are classically relieved by hanging the arm over the side of the bed and shaking. The condition is less severe during the day but exacerbated by any activity, such as knitting, holding a book or, if you are a school crossing patrol officer, a 'lollipop'! It is usually unilateral affecting the dominant hand, but eventually may become bilateral.

In this case I felt that the CTS was likely to be more relevant to her symptoms than cervical spondylosis. Pain can radiate to the shoulder as already indicated and radiological findings of cervical spondylosis in a patient of this age are very common and may be co- incidental.

Acupuncture is likely to offer symptomatic relief via local effects in reducing tissue oedema, possibly through the release of neuropeptides from sensory nerves. It is also likely to have an effect on central pain modulation through stimulation of Aδ nerve fibres. In addition to acupuncture, modifications to her working practice also proved beneficial. These included, holding her 'lollipop' in her non-dominant hand, resting it on the ground, and using the lightest possible stick.

Acupuncture, combined with modifications to her work, offered satisfactory control of her symptoms and allowed her to continue to work prior to definitive treatment in the form of surgical decompression. This is in keeping with results obtained for this condition in a number of other patients. Symptomatic relief can be obtained by regular treatment, but not, in my experience, long-term cure.

Conclusions
CTS and cervical spondylosis can co-exist and it may be difficult to distinguish symptoms arising from the two. Acupuncture can offer effective relief of symptoms in long-standing CTS but is not likely to lead to permanent cure. Valuable information may be gained from an occupational history. School crossing patrol officers are advised to get the lightest 'lollipop' that doesn't blow away and always rest it on the ground.

Reference list
1. Brain W R, Wright A D, Wilkinson M. Spontaneous compression of both median nerves in the carpal tunnel. 