Acupuncture used in the Management of Pain due to Arthropathy in a Patient with Haemophilia

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Introduction
Haemophilia is a hereditary disease that almost always affects men (Hoyer 1994). Various degrees of haemophilia exist, from mild (F VIII>0.05 IU/ml) to severe forms (F VIII<0.01 IU/ml). It is common for patients with severe haemophilia to experience recurrent bleeding and swelling of joints after minor injuries. Such patients often develop severe arthropathy. This group of patients is limited in their selection of analgesics due to the risk of bleeding from the gastrointestinal tract. Any treatment that can reduce the intake of analgesic drugs, and control pain, would be considered useful.

Presentation
This case concerns a 38-year-old man, suffering from joint pains due to his haemophilia, treated with acupuncture after authorisation from a consultant haematologist. The patient had severe haemophilia (baseline factor VIII<0.01 IU/ml) and severe arthropathy of both knees, elbows and ankles. He required regular analgesics and was receiving prophylactic factor VIII to decrease his bleeding frequency. The patient was HIV positive, having acquired the virus through blood transmission 15 years previously. He had never been thrombocytopenic due to HIV, nor had he had an opportunistic infection. The patient had received antiviral treatment, including zidovudine, lamivudine, indinavir, ritonavir, saquinavir, stavudine, nelfinavir and efavirenz. At the time of treatment his medication was lamivudine, indinavir and efavirenz and had persistent abnormal liver function.

The patient was reviewed by the haemophilia centre and joint haemophilia-orthopaedic clinic on a regular basis. Two years previously he had had an arthroscopy and synovectomy to his right knee, and he was awaiting joint replacement surgery. Moreover, he had a long-standing problem with dependence upon opioid analgesics, and was taking Oramorph as analgesia for his arthropathy.

The patient’s main complaint was pain, swelling and restricted movement in the left elbow and right knee. On examination there was swelling and deformity of each joint, restricted movement and tenderness on palpation. Prior to the acupuncture treatment he had taken factor VIII, as prescribed by the haemophilia clinic.

Treatment
Two tender points on the elbow were treated on the first visit. The points used were acupuncture point LU5 and LI11. Disposable stainless needles, 0.30x30mm, were used. The needles were inserted and after achieving the de qi sensation, the needles were rotated clockwise and anticlockwise for five seconds. Thereafter the needles were left in position for five minutes and then removed. A week later the patient reported that the degree of pain, and intake of Oramorph,
had been reduced for a few days. The patient received three similar treatments, and was then able to cope for six months. A slight flare-up, six months later, was controlled with two further treatments. Needles were inserted in the points mentioned above, and an additional point LI10. No further relapses have occurred since (over 10 months).

After five treatments on the knee the patient reported a significant reduction of the pain and in his intake of medication. The following points were used: SP9, SP10 and LR8. The same type of needles and technique were used as described previously. During the last 14 months he has had a top up, on average every three months, and has been able to cope with reduced medication.

**Discussion**

Patients suffering from haemophilia often develop bleeding in different joints, and as a consequence develop arthropathy, which requires strong analgesics or surgery. Such patients are limited in their choice of analgesics, due to the risk of gastrointestinal bleeding, and opioids are often prescribed, which may lead to dependence. Therefore, any technique that is able to reduce the pain and consumption of analgesics must be considered a bonus. The pathogenesis for arthropathy in haemophilia patients is different from that of, for example, osteoarthrosis of the knee. However, the signs and symptoms are the same: pain, swelling and restricted movement of the joint. Acupuncture has proved effective in a number of studies, for example, treatment of pain in the elbow (Bratthberg 1983); knees (Christensen et al. 1992); and low back (Thomas and Lundeberg 1994), just to name a few. Despite the different pathogenesis, one would imagine that patients with arthropathy would respond to acupuncture in a similar fashion to an average group of patients. Patients with arthrosis, for example, in the knee, develop myofascial trigger points in the surrounding muscles (Travel and Simons 1983/1992); and as a consequence, pain and restricted movements, due to shortening of these muscles. Acupuncture has nothing to offer in respect of the arthritic changes in the joint, but is, in a number of cases, able to control the pain, and improve the movement of the joint by releasing the shortening of the involved muscles (Travel and Simons 1983/1992).

The complete understanding of acupuncture’s mode of action is still not fully understood. However, it is generally accepted that acupuncture activates small myelinated nerve fibres in muscle, which send impulses to the spinal cord and then activate the midbrain and the hypothalamo-pituitary axis. It has been shown (Stux and Pomerenz 1987) that met-enkephalin, β-endorphin, dynorphin, serotonin and noradrenalin are involved in this process. Acupuncture may be considered in haemophilia patients where conventional therapies fail, or when a patient’s analgesic consumption gets out of control. Only qualified practitioners, in co-operation with a haemophilia centre, should perform the treatment, and the level of factor VIII should be at least 15%. In the presented case, however, bleeding was not a problem.

Patients with haemophilia are often HIV and hepatitis B and C positive due to blood transfusion. Protection of the practitioner is essential, and the use of rubber gloves is recommended. However, it should always be borne in mind that patients might suffer from either AIDS or hepatitis without being aware of it. Obviously, only disposable acupuncture needles should be used (Jørgensen et Rosted 2001).

In conclusion, acupuncture may have something to offer haemophilia patients with regard to pain management and reduction of strong analgesics. Despite the fact that some evidence exists for the efficacy of acupuncture, in particular for pain of musculoskeletal origin, more rigorous studies are needed.

**Reference list**

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