Observation

Case report

Acupuncture and small needle scalpel therapy in the treatment of calcifying tendonitis of the gluteus medius: a case report

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ABSTRACT

The case is presented of a 68-year-old man with calcifying tendonitis involving the lateral part of the gluteus medius. The presenting symptoms were chronic pain in the posterolateral region of the right hip and limitation of movement of the right hip. The patient was treated with acupuncture and small needle scalpel therapy. Three months after the procedure the patient was completely pain-free and had full range of motion. Radiographic evaluation revealed complete disappearance of the calcific deposits with no recurrence after 6 months. The use of combined acupuncture and small needle scalpel therapy to treat calcifying tendonitis of the gluteus medius may lead to a good clinical outcome without surgery.

CASE HISTORY

A 68-year-old man presented in September 2011 with a 1-year history of posterolateral pain in the right hip, with limitation of movement of the right hip and severe pain after walking for 5 min. Night-time hip pain was also mentioned. There was a tender swelling measuring 2×2 cm in the region of the lateral part of the right gluteus medius. The range of flexion of the right hip was 80°, extension was 10° and abduction was 25°.

Plain radiography showed a calcific deposit probably on the lateral head of the right gluteus medius without degenerative change (figure 1A). A diagnosis of calcifying tendonitis was made. His initial Harris Hip Score was 55.1 (0–100, high scores better) and visual analogue scale (VAS) score was 9.1

His orthopaedic surgeon had suggested an arthroscopy which he had rejected. We decided to use acupuncture and small needle scalpel therapy to treat the patient. The treatment began at the first appointment. The patient lay comfortably on a treatment bed and the skin surface was prepared with alcohol and β-iodine swabs. A small needle scalpel (1 mm×50 mm, figure 2) was inserted into the tender point corresponding to the x-ray image without rotation. The acupuncture points were chosen according to the theory of Chinese medicine and clinical experience. Five acupuncture points were selected: BL23, BL25, BL28, BL30 and GB30. The stainless steel acupuncture needles (3.8 cm long) were inserted to a depth of approximately 2.5 cm. The needles were manipulated in the acupuncture points by lifting and rotating until de qi was achieved (a term used in acupuncture to describe a feeling of ‘fullness and soreness’ in the area surrounding the insertion locus) and were left in situ for 20 min without further stimulation.

The patient received small needle scalpel therapy with acupuncture in weeks 1 and 2 with significant pain relief. Acupuncture treatment was then continued on a weekly basis for a total of 12 sessions. After 12 treatments the patient’s Harris Hip Score improved to 83.69 and the VAS score improved to 2. The range of flexion of the right hip was 100°, extension was 15° and abduction was 35°. Follow-up appointments at 4 and 6 months after treatment revealed that the patient was satisfied with his condition. In addition, plain radiography showed that the calcific deposit had totally disappeared (figure 1B).

DISCUSSION

Calcification in the tendons is relatively common in calcium pyrophosphate dihydrate deposition disease in the rotator cuff, Achilles tendon and the quadriceps tendon.2 However, calcific deposits in the gluteus medius have rarely been reported. We believe it was the source of pain in this patient, although it may also be asymptomatic. The cause of calcification of the tendons is unknown. Suggested causes include hereditary, metabolic, post-traumatic and postoperative conditions. Shedding of crystals from the deposits may induce inflammation of the tendon.3 In patients with tendonitis of the gluteus medius there is marked tenderness in the region of the origin of the tendon and severe limitation of movement.

Figure 1 Radiographs of the right hip of a 68-year-old man showing (A) an anteroposterior view with calcium deposition in the lateral head of the right gluteus medius (arrowheads) and (B) an anteroposterior view of the same site without calcific deposit.
The treatment of symptomatic calcifying tendinitis usually involves analgesic medications such as non-steroidal anti-inflammatory drugs whereas chronic and severe features can be treated by surgical procedures such as arthroscopy. When the symptoms continue to progress and constant pain interferes with routine activities, surgery is recommended. Excision of the deposit is a major procedure but may be necessary, especially in cases of chronic calcific tendinitis. The calcium deposit is identified and removed either through a small incision or using arthroscopy. However, adverse effects of the operation are recognised. The calcific deposit may also occasionally resolve spontaneously. In this case the patient refused the operation but achieved an excellent clinical outcome with acupuncture and small needle scalpel therapy.

Acupuncture has been used in China for more than 3000 years and has recently been gaining increased popularity among physicians and patients. The technique is an effective method in pain management. Studies suggest that acupuncture may trigger a sequence of events which include the release of neurotransmitters, endogenous opioid-like substances, and activation of c-fos within the central nervous system. In addition, many clinical trials suggest that acupuncture can be superior to usual care in treating chronic lower back pain, especially when patients have positive expectations of acupuncture.

In this case, the patient presented with a calcific deposit in the gluteus medius. The use of acupuncture and small needle scalpel therapy led to an effective clinical outcome to treat severe hip pain and improvement in the absorption of the calcific deposit, which provided a result comparable with arthroscopy but without the operative risks. Furthermore, it is much less expensive with no additional demands on either the patient or the institution.

In conclusion, acupuncture with small needle scalpel therapy may be worth trying as an alternative method of treatment for calcifying tendinitis.

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