

Long-Term Efficacy Of Bone Decompression Technique Combines With Fascia Decompression Technique Improve Symptoms Of Knee Osteoarthritis

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BACKGROUND: Type T Bone Decompression Needle and Zhendao (acupotomy) are newly developed instruments in recent ten year, and wild used in sport medicine field. In this research we find the use of bone decompression technique combine with facia decompression technique seems to have positive long-term effects on reducing pain and improving knee function in patients being treated for knee osteoarthritis.

PURPOSE: The purpose of this study was to evaluate the clinical and imaging results of patients who received bone decompression technique combines with fascia decompression technique for the treatment of knee osteoarthritis. **METHODS:** The study group comprised 108 patients (42 men and 66 women), among whom the mean age was 56.3 years (range, 43 to 75 years). The patients were referred to the author's clinic with a diagnosis of knee osteoarthritis, all patients having symptoms for longer than 12 months. Treatment of bone decompression was performed in the distal part of femur and proximal part of tibia, not in articular cavity. The therapy consisted of 10 time/3 months. Bone decompression technique was practiced by using hand-held T-shape instrument, its drilling tip is 2mm in diameter, and penetrate in to the bone in 2~3cm. The width of Zhendao(acupotomy) instrument's blade which used in fascia decompression technique is 0.8mm. Soft tissue is treated with fascia decompression technique using Zhendao(acupotomy). Clinical outcome was evaluated with the Western Ontario and McMaster Universities

Osteoarthritis Index, the Lysholm score, and the visual analog scale (VAS) for grading knee pain. We also compared magnetic resonance imaging (MRI) data collected both preoperatively and at the final follow-up. RESULTS: Western Ontario and McMaster Universities Osteoarthritis Index scores decreased significantly ($P < .001$). Lysholm scores also improved significantly ($P < .001$) by the follow-up visit. Likewise, changes in VAS scores throughout the follow-up period were also significant ($P < .005$); the mean VAS score decreased from 5.6 pre-decompression to 1.8 at the last follow-up visit. Radiography showed that, at the final follow-up point, the whole-organ MRI score had significantly improved from 62.3 points to 42.7 points ($P < .001$). Particularly notable was the change in cartilage whole-organ MRI score, which improved from 28.3 points to 18.5 points ($P < .001$). Further analysis showed that improvements in clinical and MRI results were positively related to the times of decompression. CONCLUSIONS: The results of our study are encouraging and show that bone decompression technique combines with fascia decompression technique is effective for reducing pain and improving knee function in patients being treated for knee osteoarthritis.

LEVEL OF EVIDENCE: Level IV, therapeutic case series.

Category(s): Bones, Cartilage, Osteoporosis, Osteoarthritis, Osteochondritis, Cartilage Treatment, X-ray, MRI, CT-Scan, Osteonecrosis, Cartilage Injuries, Knee, Medical Aspects, Arthroplasty, Evidence Based Medicine, Osteotomy, Repair / Reconstruction, Elderly, Adult

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