

Extracorporeal Shock Wave Therapy(ESWT) in the Treatment of Recalcitrant Plantar Fasciitis - Affecting Factors For the Results

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Purpose :

The plantar fasciitis is the most common cause of heel pain. Standard treatment of plantar fasciitis is a conservative therapy and include nonsteroidal anti-inflammatory drugs(NSAID), heel cups, night splints, orthoses, electrotherapy, physiotherapy with stretching exercises and local steroid injections. After unsuccessful conservative treatment of at least 6 months, surgery is eventually recommended. The aim of this study was to investigate the results of extracorporeal shock wave therapy and various affecting factors to the results in patients with a previous unsuccessful no surgical treatment of at least 6 months.

Materials and Methods :

63 patients with a previous unsuccessful no surgical treatment of at least 6 months were included. A clinical investigation was carried out before ESWT and at follow-up appointments(1, 3, 6 months). Patient satisfaction, pain caused by manual pressure, pain on walking were scored with visual analogue scale(VAS). And the patients estimated the comfortable walking time. The mean duration of follow-up was 5.5 weeks(range, 3 11). Body weight, age, previous treatment, duration of symptom as clinical factors were estimated and calcaneal spur size in simple X-ray, thickness of plantar fascia and soft tissue oedema in ultrasonography. Treatment comprised 1000 impulses of shock wave at 14 kV(OssaTron) in local block.

Results :

At sixth months, the rate of good and excellent outcomes was 36.5% and 22.3% of patients was not changed. After ESWT pain caused by manual pressure decreased from 75 point to 34 point on the visual analogue scale(VAS) and pain on walking from 72.5 point to 38 point. The comfortable walking time had increased from 0.3 hour to 3.4 hours. The rate of good and excellent outcomes in patients with non-invasive previous treatment was 66.6% and 47.8% in calcaneal spur size less than 5mm. It seemed that the result was more improved as less as the steroid injection number. No adverse events were reported after 3 months follow-up visit.

Conclusions :

The non-invasive nature and minimal complications of appropriately applied ESWT are its primary advantages. The effects of ESWT seems to be time dependent. Steroid injection and large calcaneal spur might effect on less satisfactory results.