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Abstract

Introduction: Plantar fasciitis is the most common cause of plantar heel pain, accounting for almost 15% of all foot-related complaints. Arch supports and heel pads are the main foot orthotics to manage the heel pain. Despite the high prevalence of plantar fasciitis, e¼cf

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H design was a randomized clinical trial. H protocol was approved by the Ethics Committee of Isfahan University of Medical Science, Iran (REC.MUI.139200076). Participants were invited by advertising in a local orthopaedic clinic (Alzahra hospital, Isfahan, Iran) and recruited as many as were referred. All subjects read and signed the informed consent form prior to participation in this research. H \included forty adults (30 women, 10 men; mean age ± SD: 44.46 ± 9.7 years) diagnosed with unilateral plantar fasciitis by an orthopaedic specialist. Individuals were assessed for trial eligibility at initial assessment. H diagnosis was made based on clinical history and physical assessment. Subjects diagnosed by PF were referred to an Orthotics Clinic (Isfahan University of Medical Sciences, Isfahan, Iran).

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getting worse for 8 people in the early morning. 2 subjects had pain after sport activity and no one did experience any pain during the night.

The baseline characteristics of each group, including age, sex, weight, and the duration of foot pain were recorded in Table 1. Two groups were similar in the baseline outcomes; No significant difference was observed in age, weight, and duration of the lesion between two groups (p=0.075). There was no significant difference between pain (p=0.98) and foot function between two groups in the first and follow-up sessions (p=0.05). Pain was significantly reduced after using orthoses; there was no significant difference between two types of orthoses in the reduction of the heel pain (p=0.23). Following six weeks, the change in the maximum pain indicated that the use of an orthosis in each group lead to pain relief (p<0.001) but the interaction of orthosis type and the time was not significant (p=0.94). According to the Spearman's Rho test the body weight had a direct association with the pain score (r=0.345; p=0.001). Figure 4 gives data at the initial assessment and 6-week follow up sessions and shows the treatment effects on quality of foot and ankle function and other outcome measures.

	Arch support (n=20)	Heel pad (n=20)	Total (n=40)
Age (years Mean ± SD)	44.45 ± 9.3	44.47 ± 10.42	44.46 ± 9.7
Weight (Kg Mean ± SD)	77.45 ± 13.93	68.10 ± 14.39	72.89 ± 14.75
Female, n(%)	16 (80%)	14 (70%)	30 (100%)
Male, (%)	4 (20%)	6 (30%)	10 (100%)
Duration of foot pain (months)	7.6 ± 6.3	8.2 ± 5.13	7.8 ± 5.2

Table1: Baseline characteristics of participants in each group.

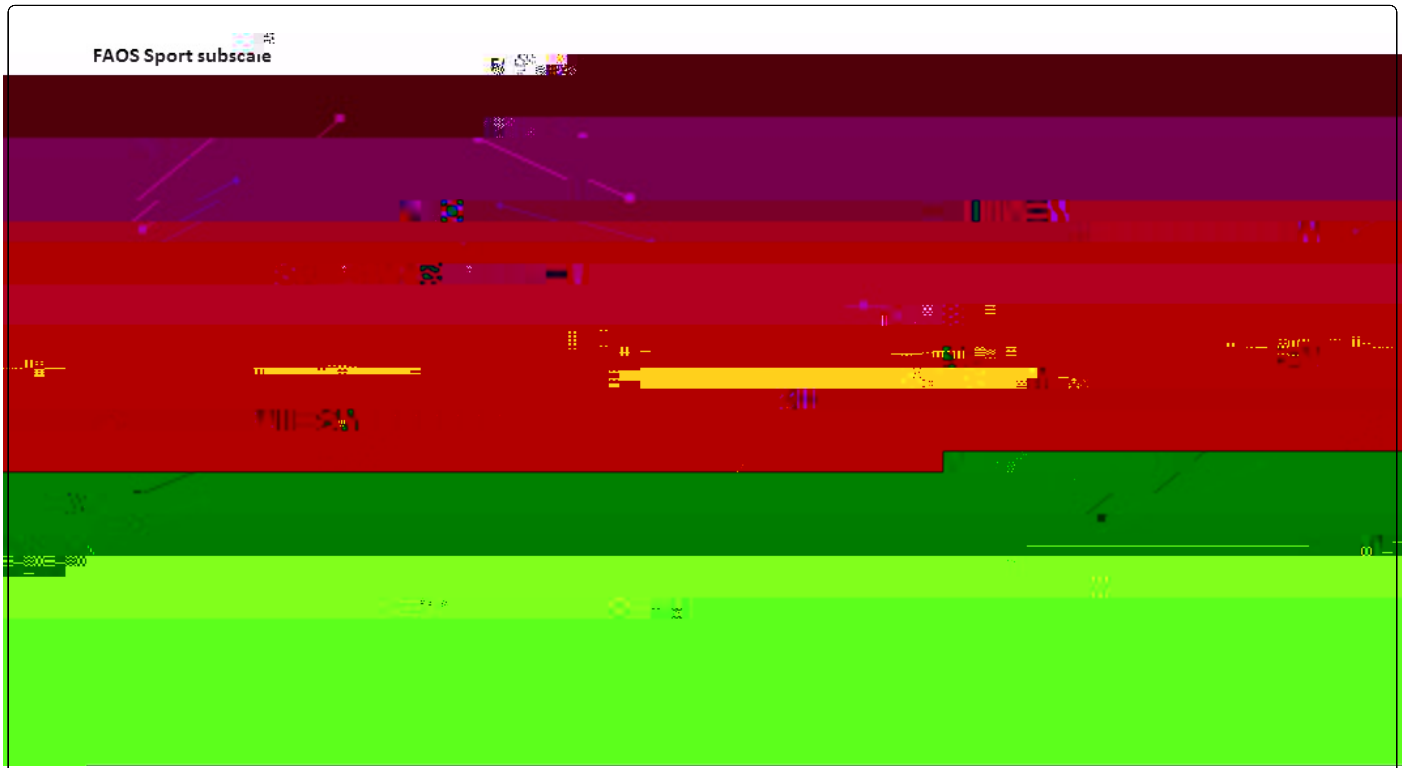

Figure 4: All data from FAOS questionnaire (pain, symptom, quality of life, ADL, and sport) by treatment group. ADL=Activity Daily Living; FAOS= Foot and Ankle Outcome Score.

Discussion

The objective of the present study was to investigate the effectiveness of two treatment concepts through their effects on pain and function. It has been hypothesized that either silicone heel pad or soft insole with arch support could result in the pain management and the foot function improvements in the users. The results of this study indicated that both silicone heel pad and soft insole with arch support had successful outcomes in the management of plantar fasciitis over a six-week period. There was no substantial difference in the overall pain relief and foot function improvement between these two types of foot orthoses (Table 2).

Group	No.	Pre-intervention (Mean ± SD)	Post-intervention (Mean ± SD)	p
Soft arch support	20	4.40 ± 0.68	1.94 ± 0.53	0.007*
Silicone heel pad	20	4.45 ± 0.68	2.85 ± 1.26	0.008*
*significant differences between data.				

Table 2: Pain score E H I R U Hnte Dvnhbu.

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