Measuring the Level of Footwear Suitability in Patients with Calcaneal Epin

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INTRODUCTION

Plantar heel pain is one of the most common musculoskeletal disorders affecting the foot in adults. Calcaneal apophysitis, characterized by calcium deposition between the heel and the arch of the foot, can result from stress caused by activities, leading to fragmentation of the heel spur and compression of the nerves of the plantar fascia, potentially resulting in plantar fasciitis. Our aim is to investigate the level of footwear suitability among our patients with heel spurs who have presented to the departments of physical therapy and rehabilitation as well as orthopedics at Bezmialem Vakif University Medical Faculty Hospital. The study expects to yield beneficial results by evaluating our patients using the Footwear Assessment Scale.

METHODS

A study group will be formed by selecting patients who present with heel spur complaints at the departments of physical therapy and rehabilitation and orthopedics clinics. Scoring will be done using the Footwear Assessment Scale. The statistics of the parameters will be calculated using IBM SPSS Statistics 22.0. The statistics of the data will be presented as mean ± standard deviation, median (min-max), and n(%). A difference of 0.9 between the means and a standard deviation of 2.2 will be considered. The sample size has been determined to be at least 64 (N=64). The results will be analyzed and reported at a significance level of $\alpha = 0.05$. Thus, the footwear suitability levels of the patients will be investigated.

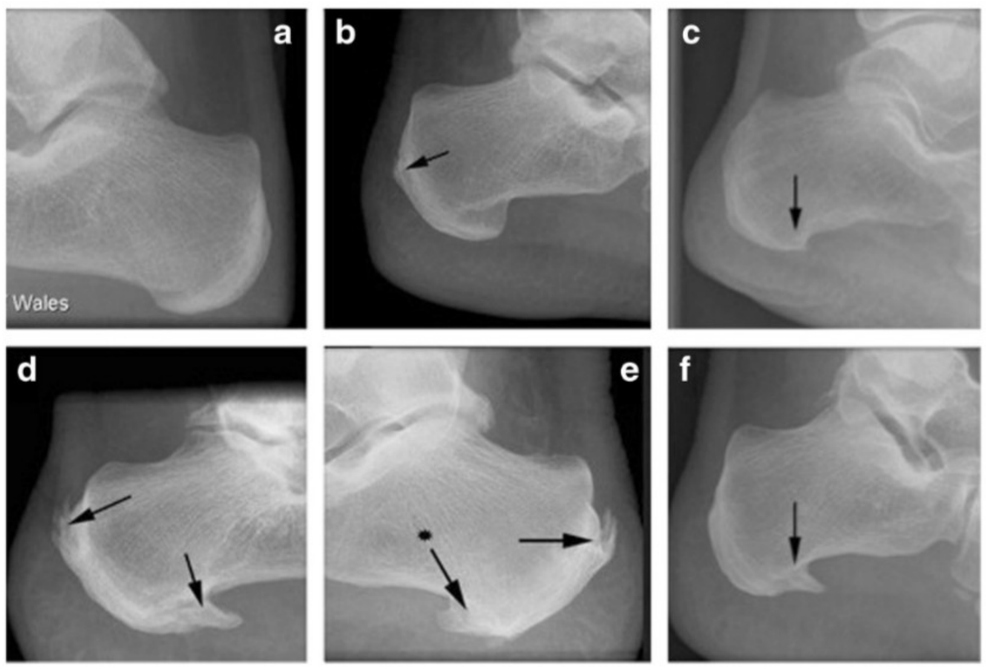
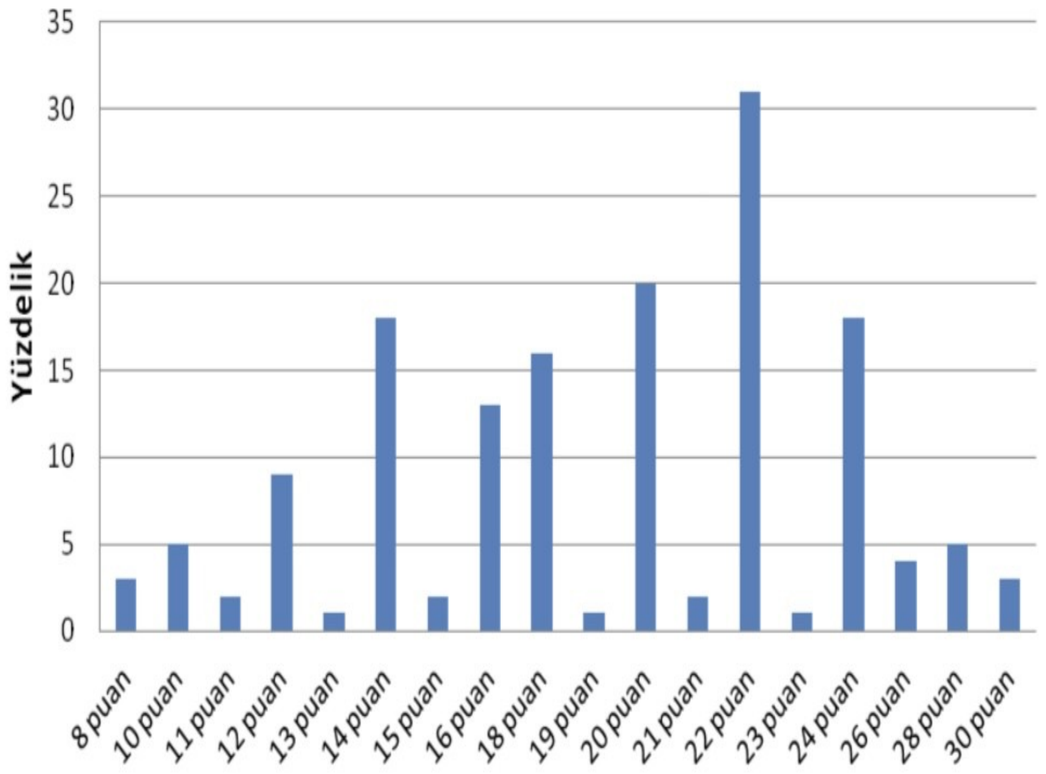


Figure 1: Example of small and large spurs



Graphic 1: Shoe Rating Scale scores of all individuals

RESULTS

58% of the participants in our study were female (n=37), and 42% were male (n=27). It was evidenced that women experienced more foot deformities due to wearing unsuitable shoes. Concerning the footwear suitability of the 64 individuals included in the study, it was observed that 2.9% scored full points, 19.1% scored 24 points, 12.7% scored 22 points, and 10.7% scored 14 points. The average footwear suitability score of the individuals was approximately 18. Upon examining the scores obtained from the Footwear Assessment Scale (FAS), it was observed that the highest score obtained was 22, and the lowest scores were 13, 19, and 23. When comparing women and men in terms of FAS, a significant difference in favor of men was determined ($p>0.05$).

CONCLUSION

Upon examining the footwear suitability in our study, it was found that men obtained higher scores compared to women. It was determined that men wore more suitable shoes and had better balance and functional performance also observed that gender is an important factor in evaluating footwear suitability, and men were found to be more successful.

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