ORIGINAL RESEARCH PAPER

Rheumatology

CLINICAL PROFILE OF PLANTAR FASCIITIS: A TERTIARY CARE CENTER STUDY

KEY WORDS: Plantar Fascia (PF), Heel Pain,plantar Fasciitis

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ABSTRACT

BACKGROUND: Plantar fasciitis is a degenerative tissue condition with symptom of heel pain. Treatment includes patient education, NSAIDS, localinjections, surgery& footwear modification alternative therapy.Aim &Objective:To study the clinical profile of plantar fasciitis patients. Methods:Prospective cross- sectional studywith 40 diagnosed unilateral or bilateral plantar fasciitis patients satisfied inclusion and exclusion criteria attendedthe PMR opdof VMMC & Safdarjung hospital were enrolled . Detailed history and clinical examination done. Results:Patients mean age group was 36.92 ± 7.99 years among them60% females&40% were males also involvement of left side is more 60% & right side 40%, the occupation profiles are 35% homemakers, 35% professionals, 17.50% laborer &12.50% were students Conclusion: Female homemakers and professionals of age group 31-40 years were mostly affected with dominancy of left heel.

INTRODUCTION:

Plantar fasciitis is a degenerative process of the plantar fascia where a patient experience insidious onset of pain at the bottom of feet, particularly around heel. The pain starts with first few steps after resting. The word "fasciitis" assumes inflammation is an inherent component of this condition. However, recent research suggests that some presentations of plantar fasciitis manifest non-inflammatory, degenerative processes and should more aptly be termed "plantar fasciosis". (1,2)

It is diagnosed on the basis of history and careful examination. Physical examination reveals localized tenderness on palpation of plantar fascia at its origin at medial tubercle of calcaneal tuberosity. (3)

Treatment for plantar fasciitis can be divided into numerous categories like, patient education, non-invasive, heat modalities, electric modalities, patient education, soft tissue therapy, massage, taping, night splints, stretching, strengthening, extra-corporeal shock wave therapy), anti-inflammatory medications (aspirin, ibuprofen, naproxen), injections (steroids, local anesthetics, platelet reach plasma),footwear modification and surgical intervention (endoscopic or open fasciotomy). (4,5)

Materials & methods:This study was a single center observational study conducted in department of PMR of a tertiary care hospital during September 2014 to January 2016. 40 symptomatic feet in otherwise healthy individuals with the diagnosis of unilateral or bilateral plantar fasciitis attending Outpatient department of PMR of Safdarjung hospital after satisfying the inclusion criteria of like Age 18 years and above, Patient diagnosed with unilateral or bilateral plantar fasciitis, Physical examination revealing maximum tenderness at the attachment of the plantar fascia on the medial tubercle of the calcaneus) were enrolledand the patients having (Local malignancy, Achilles tendon pathology, diagnosis of vascular insufficiency or neuropathy related heel pain like radiculopathy, tarsal tunnel syndrome)were not enrolled in this study. . We took one symptomatic foot as one case. The diagnosis of plantar fasciitis was made based on history and clinical examination.All data were analysed using SPSS version 21.Categorical variables were presented in number and percentage (%) and continuous variables were presented as mean ± SD and median.A p value of <0.05 was considered statistically significant.

RESULTS:

Patients with 40 symptomatic feet satisfying the inclusion criteria and exclusion were enrolled in the study.

Majority of patients were in between 31-40 years (table 1) with mean age 36.92 years. There were 16 male and 24 female (table 2) in the study group with mean duration of the symptoms was 15.1 ± 4.02 weeks. Majority of our patients (60%) had involvement of left side of heel(table 3) and majority of them were homemakers 35%followed by laborer 17.50% and students 12.50%(Figure 1).

Table 1: Age Distribution

Age(years)	GroupA
<30	9 (22.50%)
31-40	21 (52.50%)
41-50	7(17.50%)
51-60	3 (7.50%)
Total	40 (100.00%)

Table 2: Gender distribution

Female	24 (60.00%)
Male	16 (40.00%)
Total	40 (100.00%)

Table 3: Side involved

Left	24 (60.00%)

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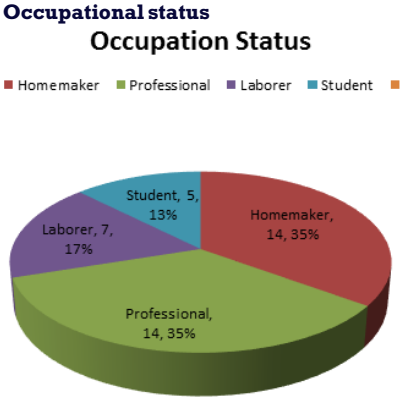
Right	16 (40.00%)
Total	40 (100.00%)

Figure 1: Occupational status



DISCUSSION:

The plantar fascia is a fibrous sheet of connective tissue originating from the inferior aspect of the calcaneus, attaching to the plantar plates of the metatarsophalangeal joints and the bases of the proximal phalanges of the toes. It serves as a dynamic shock absorber for the foot and entire leg. The fascia is prone to repetitive injury at the posterior attachment because of its role in maintaining the medial longitudinal arch.

The clinical diagnosis of plantar fasciitis can be made easily on clinical basis. Imaging can help in the diagnosis of plantar fasciitis. It is recommended in chronic refractory cases for confirmation of the diagnosis.

In our study the mean age group reported with symptoms was of 36.92 ± 7.99 years.

In our study left side of heel (63.37%) was predominantly involved as compared to right side (36.25%). However, in the literatures reviewed& searched, we do not any study that showed right or left side predominance in plantar fasciitis.

Most of our patients were housemakers (41.25%) or in job of prolonged standing. This finding is consistent with study of Lapidus PW and GuidottiFP&Hoebeke, R. E. in which patient population showed a predominance of plantar fasciitis of occupations that necessitate continual standing or walking, such as waiters, maids, and kitchen workers.(6,7,8)

In our study, classical history of first step pain and clinical examination of tenderness at medial calcaneal tuberosity, were used to diagnose plantar fasciitis, supported by radiographic finding of inferior calcaneal spur occasionally on lateral film of ankle and foot.

CONCLUSION:

Chronic heel pain is one of the most common conditions treated in foot and ankle practice. Plantar fasciitis, which is the most common cause of heel pain, is primarily considered mechanical in origin, but little is known about its pathogenesis.Female homemakers and professionals of age group 31-40 years were mostly affected with dominancy on left side.

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