

Prevalence of Plantar Fasciitis in Pharmacists

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DOI: <https://doi.org/10.52403/ijhsr.20230904>

ABSTRACT

Background: Plantar Fasciitis is a common pathology with major complaints of plantar heel pain which occurs due to localized inflammation of plantar aponeurosis, It mainly occurs due to prolonged standing, Pharmacists is such a occupation that demands long standing for hours.

Objective: To find out the prevalence of Plantar Fasciitis in pharmacists by using Foot Function Index.

Method: In this study 100 pharmacists between the age group 46 to 60 years were included who fulfilled the inclusion and exclusion criteria, first windlass test was performed on 100 pharmacists then pharmacists who were positive in windlass test were asked to score Foot Function Index.

Result: Statistical Analysis showed that 54% pharmacists have plantar fasciitis prevalence and as the age increases the prevalence of Plantar Fasciitis increases.

Conclusion: The study showed a high prevalence of Plantar Fasciitis in pharmacists, in this study it was also observed that there is increased incidence of Plantar Pain, Disability and Activity Limitation as the age increases.

Keywords: Plantar Fasciitis, Pharmacists, Windlass Test, Foot Function Index.

INTRODUCTION

Heel pain is most commonly seen in plantar fasciitis, it involves plantar fascia inflammation that causes thickness of band that runs across the bottom of the foot and connects your heel bone to toes.^[1] The first step in morning causes stabbing pain that commonly indicates plantar fasciitis, as the person gets up and move more the pain decreases but might return after long periods of standing.^[1] Plantar fasciitis is a common musculoskeletal condition associated with difficulty in performing activities of daily living.^[7] In Plantar fasciitis, inflammation is caused due to micro-trauma of plantar fascia.^[1] Some occupations demand prolonged standing that causes weight bearing of the foot, because of repetitive tensile load placed on fascia that considers risk factors to plantar fasciitis.^[1] Occupation of pharmacists is such that they

require long periods of standing and throughout modern era, the periods of long standing in pharmacists has increased. Objective of this study is to find out prevalence of plantar fasciitis in pharmacists using FFI. Windlass test is the only objective test to diagnose plantar fasciitis, Brown described the test as forced flexion of great toe which is associated with an increase of pain at the site of insertion of plantar fascia in patients with plantar fasciitis.^[8] Windlass Test was performed to diagnose plantar fasciitis in pharmacists. U.S. studies considered plantar fasciitis prevalence across demographic subgroups and found association between plantar fasciitis and increasing age. Foot Function Index was developed as a self-reporting measure that assess multiple dimensions of foot function. Foot Function Index consists

of 23 items divided into 3 subscales. Components of FFI are: 1) Pain subscale 2) Disability subscale 3) Activity Limitation

MATERIALS & METHODS

The study was an observational study. 100 pharmacists between age group 46 to 60 years were selected using the convenient sampling method. Inclusion Criteria: only males, working hours – 8 to 10 hours, Age group – 46 to 60 years. Exclusion criteria: Females, Any Systemic disease, open wounds, fractures. Materials used: Pen, Pad, Outcome Measure FFI. The study procedure for this study was as follows: 100 subjects were selected based on inclusion and exclusion criteria. Prior to the study a written informed consent was taken of each subject in language best understood by them. Demographic data of the subject (Name, Age, Working hours, Chief complaint) was taken. Windlass test was performed on 100 pharmacists. Out of 100 subjects, 54% were positive in windlass test. Positive subjects were asked to score FFI. The data was collected and statistically analysed result was prepared.

STATISTICAL ANALYSIS

Data was collected in a data sheet and encoded for computer analysis, Tables were made using MS word and figures were plotted using MS excel, computerised analysis of the data was done.

RESULT

A total of 100 pharmacists were included in the study. The mean age of the patient was between 46 to 60 years. Only males were included. Windlass Test was performed on 100 subjects, 54% pharmacists were positive and 46% were negative. Positive subjects were asked to score FFI. As the mean age group was between 46 to 60 years, pharmacists between age group 46 to 50 got score between 0-15% on FFI, pharmacists between age group 51 to 55 got score 16-30% on FFI, pharmacists between age group 56 to 60 got score between 31-50% on FFI. The results showed that: A] 54% pharmacists are positive in Windlass Test. B] As the age increases, foot pain, disability and activity limitation increases.

GRAPH 1: REPRESENTS THE PERCENTAGE OF POSITIVE AND NEGATIVE PHARMACISTS IN WINDLASS TEST

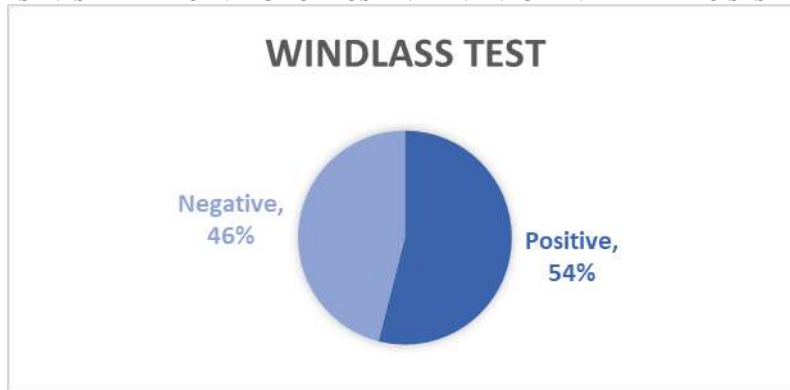


TABLE 1: REPRESENTS FFI SCORE PER AGE GROUP

Age group	FFI SCORE
46-50	0-15%
51-55	16-30%
56-60	31-50%

DISCUSSION

The focus of this study was to find out the prevalence of plantar fasciitis in pharmacists using WT and FFI. 100 pharmacists were included in the study, windlass test was

performed on 100 pharmacists, 54% were positive and 46% were negative, pharmacists who were positive in WT were asked to score FFI. Age group included was between 46 to 60 years, out of these 53 pharmacists were between 46 to 50 years age group and out of 53, 18 were positive in WT , 34 pharmacists were between 51 to 55 years age group and out of 34 , 23 were positive in WT, 13 pharmacists were

between 56 to 60 years age group out of 13, 12 were positive in WT. Age group 56 to 60 got highest percentage (92%) of positive individuals in WT and higher score and highest score (31-50%) in FFI. Age group 51 to 55 got higher percentage (67%) of positive individuals in WT and higher score (16-30%) in FFI. Age group 46 to 50 got lower percentage (33%) of positive individuals in WT and lower score (0-15%) in FFI. As the age increases and years of longstanding increases, pain, disability and activity limitation increases. The most common cause of heel pain in older adults is PF, It results due to wear and tear of plantar fascia, degeneration of heel pad, overuse or inflammation. Study conducted by Martin J. Thomas, Rebecca Whittle – plantar heel pain in middle aged and older adults concluded that plantar heel pain is a common, disabling symptom among adults aged 50 years and more.^[4] Study conducted by Hylton B. Menz -Chronic foot pain in older people Suggests that foot pain is a common accompaniment of advancing age , affecting at least one in four older adults.^[13] Study conducted by Karen J. Mickle, Bridget J. Thomas – Foot pain, plantar pressure and falls in elderly concluded that high plantar pressures generated during gait in older adults may contribute to foot pain.^[14]

CONCLUSION

The study showed a high prevalence of plantar fasciitis in pharmacists, in this study it was also observed that there is increased incidence of plantar pain, disability and activity limitation as the age increases.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement:

I express my deep sense of gratitude and sincere thanks to our respected sir Dr . Ajay Kumar and Guide Dr. Leena Zore who has immensely help me with sincere guidance, untiring cooperation, valuable advice and endless inspiration during the course of the study. I also take this opportunity to thank

my family members and friends for their help and support.

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

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How to cite this article: Anuja S. Jumle, Leena Zore. Prevalence of plantar fasciitis in pharmacists. *Int J Health Sci Res.* 2023; 13(9):18-21. DOI: [10.52403/ijhsr.20230904](https://doi.org/10.52403/ijhsr.20230904)
