Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effectiveness of Graston technique treatment on Pain, and Foot General Health of chronic Plantar Fasciitis patients

Protocol summary

Study aim
My study aim is to assess the effectiveness of Graston technique with taping on the treatment of chronic plantar heel pain, foot function and foot health related quality of life of chronic plantar fasciitis patients.

Design
Randomized, parallel groups, single blinded, randomized controlled trial

Settings and conduct
Medina Teaching Hospital, participants will be blinded so that they can not know either they will be in intervention group or in control group

Participants/Inclusion and exclusion criteria
Inclusion criteria Patients will be diagnose with chronic plantar fasciitis and Pain started before more than 6 weeks and less than 6 months Both gender age of 20 to 45 years were included Pain on first steps of walking out of bed in the morning or after prolonged standing, or sitting Pain located at the anterio- medial surface of heel or mid-foot and presence of an everted calcaneus greater than or equal to 2 Exclusion criteria No Previous history of severe vascular disease, cancer, joint disease, neurological disorders related to lower limb of affected side and pathological calcaneal spur Ankle and foot fracture or surgery before 6 months and stress fracture before 8 months Plantar having fascia release surgery done within 3 month back Diabetics and altered skin sensation or foot dermal conditions Who are already taking physical therapy treatment or any other treatment during 30 days of participation Pregnant female Who refuse to participate in the study

Intervention groups
There will be one treatment group and one control group. 30 participants will include by randomization into treatment group and control group. 15 individuals will include into the treatment group which will GT group, 15 individuals will include into the control group which will control group randomly.

Main outcome variables
plantar heel pain, Foot function and General foot health

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20210111050005N1**
Registration date: **2021-02-01, 1399/11/13**
Registration timing: **registered_while_recruiting**

Last update: **2021-02-01, 1399/11/13**
Update count: **0**

Registration date
2021-02-01, 1399/11/13

Registrant information

Name
Noreen kiran

Name of organization / entity
The University of Faisalabad

Country
Pakistan

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+92 41 5212044

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-01-30, 1399/11/11

Expected recruitment end date
2021-04-04, 1400/01/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effectiveness of Graston technique treatment on Pain, and Foot General Health of chronic Plantar Fasciitis patients

Public title
Effectiveness of Graston technique treatment on chronic plantar Fasciitis

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Patients diagnosed with chronic plantar fasciitis Patients having pain started before more than 6 weeks and less than 6 months Both male and female of age 20 to 45 years were included Patients having pain on first steps of walking out of bed in the morning or after prolonged standing, or sitting Patients having pain located at the anterio- medial surface of heel or mid-foot and presence of an everted calcaneus greater than or equal to 2

Exclusion criteria:
Patients having previous history of severe vascular disease, cancer, rheumatoid arthritis, or osteoporosis, neurological disorders related to lower limb of affected side, pathological calcaneal spur Patients having Ankle and foot soft tissue masses/bursitis, tendon pathology or scar, heel fat pad atrophy/hypertrophy Patients having Ankle and foot fracture or surgery before 6 months and stress fracture before 8 months Patients having pain or foot related complications after fracture or surgery Patients having fascia release surgery done within 3 months back Patients having Diabetics and altered skin sensation or foot dermal conditions Who are already taking physical therapy treatment or corticosteroid injections and who were not willing to quit such treatment during 30 days of participation Pregnant female Who refuse to participate in the study

Age
From **20 years** old to **45 years** old

Gender
Both

Phase
2

Groups that have been masked

- Participant

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Each patient of heel pain coming to the recruitment center will be screened. I will make a list of 30 patients according to the sequence as they are coming I will be give them numbers 1 to 30 i.e. the first patient enrolled will be given number 1 and last patient enrolled will be given number 30. Every odd will be allocated into treatment group and every even number will be allocated into control group.

Blinding (investigator's opinion)
Single blinded

Blinding description
I will give each participant a number, e.g 1 to 30, on the basis of these numbers i will make two groups, one will be treatment group in which all even numbers will be allocated, and one will control group in which all odd numbers will be allocated. In this way this way i could not know which participant will be in which group and participant will also not know who will be entered in which group.

Placebo
Not used

Assignment
Other

Other design features
Objective 1= To assess the effectiveness of Graston technique with taping on the treatment of chronic plantar heel pain in chronic plantar fasciitis patients, Objective 2= To assess the effectiveness of Graston technique with taping on foot function and foot health related quality of life of chronic plantar fasciitis patients

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethical committee of The University of Fiasalabad

Street address
Medina University near kea motors showroom, Sargodha road Faisalabad

City
Faisalabad

Postal code
38000

Approval date
2020-08-03, 1399/05/13

Ethics committee reference number
TUF/DR/MSPP/005

Health conditions studied

1

Description of health condition studied
Plantar fasciitis. Overloading and repetitive micro trauma results plantar fasciitis This is a health condition not a disease.

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

pain

Timepoint

Before intervention, and 2, 4 weeks after intervention

Method of measurement

by using plantar fasciitis pain scale

Secondary outcomes

1

Description

General foot health status

Timepoint

before intervention and 2, 4 weeks after intervention

Method of measurement

by The Foot Health Status Questionnaire

Intervention groups

1

Description

It will receive baseline treatment (Therapeutic ultrasound, stretching exercises of calf and plantar fascia, taping) and Graston technique by Graston tool. treatment will be of 2 sessions per week (every 3rd day) for 4 weeks. Ultrasaound protocol= Therapeutic ultrasound was given to the patients for 5 minutes(continuous mode, intensity of 1 W/cm2 with frequency of 1 MHz for five minutes in prone lying (Sankhe, et al., 2016). Stretching exercises of calf and plantar fascia= Stretching exercises of plantar fascia muscle and calf muscles, performed 10 stretches holding each for 10 seconds (DiGiovanni et al., 2006, Garret and Neibert, 2019). Taping mechod= low dye taping with calcaneal sling technique will be used. leukotape (type of tape) will be used for this purpose. taping will be apllied on every 3rd day of week, after application patient will will be guided to remove tape after 24 hours (Hyland et al., 2006, Weon, Kim and Jung, 2015). Graston technique= First of all Graston technique lubricant will be applied on plantar surface of foot. For 8 minutes sweeping strokes will applied start from meta-tarsals to calcaneus then from calcaneus to meta-tarsal. For this purpose Graston tool to mobilize the soft tissue will be used. The area where high restriction of the soft tissue will present, aggressive Graston treatment with increase force and shorter strokes on that area will applied. Patients will be monitored if there is an increase in pain or discomfort during whole treatment (Jones et al., 2010).

Category

Treatment - Other

2

Description

It will receive only baseline treatment (Therapeutic ultrasound, stretching exercises of calf and plantar fascia, taping). treatment will be of 2 sessions per week (every 3rd day) for 4 weeks. Ultrasaound protocol= Therapeutic ultrasound was given to the patients for 5 minutes(continuous mode, intensity of 1 W/cm2 with frequency of 1 MHz for five minutes in prone lying (Sankhe, et al., 2016). Stretching exercises of calf and plantar fascia= Stretching exercises of plantar fascia muscle and calf muscles, performed 10 stretches holding each for 10 seconds (DiGiovanni et al., 2006, Garret and Neibert, 2019). Taping mechod= low dye taping with calcaneal sling technique will be used. leukotape (type of tape) will be used for this purpose. taping will be apllied on every 3rd day of week, after application patient will will be guided to remove tape after 24 hours (Hyland et al., 2006, Weon, Kim and Jung, 2015)

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Madina teaching hospital

Full name of responsible person

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

The University of Faisalabad

Proportion provided by this source
2

Public or private sector
Private

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
The University of Faisalabad

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Position
Demonstrator

Latest degree
Specialist

Other areas of specialty/work
Physiotherapy

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Other areas of specialty/work
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
Data is confidential

Study Protocol
No - There is not a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
Not applicable

Analytic Code
Not applicable

Data Dictionary
No - There is not a plan to make this available