

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Effect of Alfredson vs Silbernagel eccentric protocol on clinical outcomes in Amateur players with Achilles tendinopathy

Protocol summary

Study aim

The aim of the study is compare the effect of Alfredson vs Silbernagel eccentric protocol on clinical outcomes in Amateur players with Achilles tendinopathy

Design

A single blinded randomized controlled trial, conducted on 72 patients, equally divided into two groups, single centered study.

Settings and conduct

The university of Lahore teaching hospital, single blinded study.

Participants/Inclusion and exclusion criteria

Age of 18-40 years, Both male and female with Grade 1, Grade 2 - Tendinopathy (grade 1 represents a normal tendon; grade 2 an enlarged tendon) and Clinical diagnosis of Achilles tendinopathy. Arc test, Thompson test, RLH test are diagnostic tests are included. Achilles tendon rupture, History of invasive intervention for AT on more painful side, Diagnosed systemic inflammatory conditions (e.g. rheumatoid arthritis, ankylosing spondylitis), Any other lower limb pathology are excluded.

Intervention groups

72 patients will be randomly divided into control and experimental groups. The control group will receive Alfredson eccentric protocol while the experimental group will receive Silbernagel eccentric protocol.

Main outcome variables

Pain, Quality of life

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20231017059755N1**

Registration date: **2024-05-09, 1403/02/20**

Registration timing: **retrospective**

Last update: **2024-05-09, 1403/02/20**

Update count: **0**

Registration date

2024-05-09, 1403/02/20

Registrant information

Name

Mehak Amjad

Name of organization / entity

The University of Lahore

Country

Pakistan

Phone

+92 314 4976133

Email address

mehak.amjad@admin.uol.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-09-18, 1402/06/27

Expected recruitment end date

2023-12-16, 1402/09/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Alfredson vs Silbernagel eccentric protocol on clinical outcomes in Amateur players with Achilles tendinopathy

Public title

Effect of Alfredson vs Silbernagel eccentric protocol on clinical outcomes in Amateur players with Achilles tendinopathy

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:
Age of 18-40 years Both male and female Grade 1, Grade 2 – Tendinopathy (grade 1 represents a normal tendon; grade 2 an enlarged tendon). Clinical diagnosis of Achilles tendinopathy Arc test, Thompson test, RLH test are diagnostic tests

Exclusion criteria:
Achilles tendon rupture History of invasive intervention for AT on more painful side Diagnosed systemic inflammatory conditions (e.g. rheumatoid arthritis, ankylosing spondylitis) Any other lower limb pathology

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Investigator

Sample size

Target sample size: **72**

Randomization (investigator's opinion)

Randomized

Randomization description

The mechanics of randomization play a crucial role in ensuring unbiased comparisons between the two interventions. The method of randomization refers to the technique used to allocate participants to the different treatment groups is : Simple Randomization: A basic method where each participant has an equal chance of being assigned to the protocol group. Tool can be used for randomization is Random Number Tables in which each number has an equal chance of being selected. These tables can use to assign participants randomly. The random sequence is built based on the chosen method of randomization. For simple randomization, a list of random numbers can be generated.

Blinding (investigator's opinion)

Single blinded

Blinding description

An independent assessor, who will be a senior and experienced physiotherapist and further will not be the part of study will perform the assessment of patients

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Institutional review board

Street address

1-km, Defence Road, Off Bhobatian Chowk , Lahore

City

Lahore

Postal code

51000

Approval date

2023-09-14, 1402/06/23

Ethics committee reference number

REC-UOL-529-09-2023

Health conditions studied

1

Description of health condition studied

Achilles tendinopathy

ICD-10 code

M76. 60

ICD-10 code description

used to indicate a diagnosis for reimbursement purposes

Primary outcomes

1

Description

Pain

Timepoint

Before intervention and after 4 weeks of intervention

Method of measurement

Numerical pain rating scale (NPRS)

Secondary outcomes

1

Description

Pain, Quality of life

Timepoint

Before intervention and after 4 weeks of intervention

Method of measurement

Victorian Institute of Sport Assessment (VISA-A), The Achilles tendon Total Rupture Score (ATRS)

Intervention groups

1

Description

Group A: Patients will be instructed about the treatment procedures. The Alfredson isolated eccentric exercise program, which comprises 4 weeks of eccentric heel-drops on the injured limb, with the use of the uninjured limb to concentrically return to the start position. Exercises will be performed twice daily, for three sets of 15 repetitions, both with a straight and bent knee (i.e. 180 repetitions each day). Non-disabling pain during the exercises will be permitted, and load added gradually in

a backpack (in steps of 5 kg) when exercises can be performed without pain.

Category

Other

2

Description

Group B: This group will receive Silbernagel protocol comprises various concentric and eccentric heel raise exercises, which are performed both on two legs and one leg, with three sets of 15 repetitions. The duration of the program is also 4 weeks, and non-disabling pain during the exercises is also permitted, but contrary to the Alfredson program, exercises are performed only once daily. Progression is made by changing from bipedal to unipedal exercises, by progressing from concentric-eccentric to purely eccentric loading, by adding weight in a backpack (in steps of 5 kg when pain did not exceed 5 on a 0-10 numerical rating scale), and finally by using fast-rebounding and plyometric exercises

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

The University of Lahore Teaching Hospital

Full name of responsible person

Mehak Amjad

Street address

1-km, Defence Road, Off Bhobatian Chowk , Lahore

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54000

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+92 302 6965902

Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Lahore

Full name of responsible person

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university of Lahore

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Grant name

Grant code / Reference number

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

No

Title of funding source

The University of Lahore

Proportion provided by this source

100

Public or private sector

Public

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 Lahore, Pakistan

Full name of responsible person

Mehak Amjad

Position

Officer

Latest degree

Bachelor

Other areas of specialty/work

Administration

Street address

The university of Lahore main campus near bhobatian chowk

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Province

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Person responsible for scientific inquiries

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The university of Lahore

Full name of responsible person

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Person responsible for updating data

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Full name of responsible person

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All collected identified IPD

When the data will become available and for how long

Data will be available after the completion of study and will remain available till 6 months

To whom data/document is available

Data will be available for other people almost 6 months after the completion of study

Under which criteria data/document could be used

The data/document could be used by communicating with the principle investigator "Mehak Amjad" on email address "mehakamir50@gmail.com".

From where data/document is obtainable

Mehak Amjad, mehakamir50@gmail.com

What processes are involved for a request to access data/document

The data/document can be accessed through communicating with the principle investigator "Mehak Amjad" on email address "mehakamir50@gmail.com".

Comments