Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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
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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

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

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
The University of Lahore

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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

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The university of Lahore main campus near bhobatian chowk

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Person responsible for updating data

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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