

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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 Bhotatian 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 Bhotatian Chowk , Lahore

**City**

Lahore

**Postal code**

54000

**Phone**

+92 302 6965902

**Email**

mehakamir50@gmail.com

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

The University of Lahore

**Full name of responsible person**

Mehak Amjad

**Street address**

university of Lahore

**City**

Lahore

**Postal code**

54000

**Phone**

+92 302 6965902

**Email**

mehakamir50@gmail.com

**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 bhotatian chowk

**City**

Lahore

**Province**

Punjab

**Postal code**

54000

**Phone**

+92 302 6965902

**Email**

mehakamir50@gmail.com

**Person responsible for scientific inquiries****Contact****Name of organization / entity**

The university of Lahore

**Full name of responsible person**

Mehak Amjad

**Position**

Officer

**Latest degree**

Bachelor

**Other areas of specialty/work**

Administration

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**Person responsible for updating data**

**Contact**

**Name of organization / entity**

The University of Lahore

**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**