

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Comparative effects of Post Isometric Relaxation and Strain Counterstrain Technique on Pain, Range of Motion and Functional Activities among individuals with Gastrocnemius Tightness

Protocol summary

Study aim

To Compare the effects of post isometric relaxation and strain-counterstrain technique on pain, Range of motion and functional activities among individuals with gastrocnemius tightness.

Design

Single blinded randomized clinical trial with parallel assignment of 44 participants to two groups equally.

Settings and conduct

The study will be conducted at Arif Memorial Teaching Hospital. Outcome assessor will be kept blind.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Participants from age group of 18-40 who present with gastrocnemius tightness. Patients with positive silfverskiold test. Exclusion Criteria: Systemic disease causing musculoskeletal issue. Any other type of connection tissue disorder. With history of neurological disorder. Having recent lower limb or spine fracture causing change in gait pattern.

Intervention groups

Group A: Participants of group A received exercise post isometric relaxation exercise, 3 times a week for 4 weeks. Group B: Participants of group B received strain-counterstrain technique, 3 times a week for 4 weeks.

Main outcome variables

Pain: The intensity of pain will be measured by the numeric pain rating scale [NPRS]. Range of motion: ROM will be measured using a Universal Goniometer. Functional activities: Functional activities will be examined by foot functional index.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220701055331N4**

Registration date: **2024-06-15, 1403/03/26**

Registration timing: **prospective**

Last update: **2024-06-15, 1403/03/26**

Update count: **0**

Registration date

2024-06-15, 1403/03/26

Registrant information

Name

Ifra Zulqarnain Awan

Name of organization / entity

Rashid Latif Medical College

Country

Pakistan

Phone

+92 333 4975431

Email address

ifra.awan@rlmc.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-06-20, 1403/03/31

Expected recruitment end date

2024-11-20, 1403/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative effects of Post Isometric Relaxation and Strain Counterstrain Technique on Pain, Range of Motion and Functional Activities among individuals with

Gastrocnemius Tightness		Ethics committees	
Public title	Comparative effects of Post Isometric Relaxation and Strain Counterstrain Technique on Pain, Range of Motion and Functional Activities among individuals with Gastrocnemius Tightness	<u>1</u>	
Purpose	Treatment	Ethics committee	
Inclusion/Exclusion criteria		Name of ethics committee	Institutional Review Board of Rashid Latif Medical College, Lahore.
Inclusion criteria:	Both male and female Participants between age of 18-40 years with gastrocnemius tightness Patients with positive silfverskiold test	Street address	35-KM Ferozepur Road Lahore
Exclusion criteria:	Patients with Any Systemic disease Patients with any other type of connection tissue disorder Patients With history of neurological disorder Patients Having recent lower limb or spine fracture causing change in gait pattern	City	Lahore
Age	From 18 years old to 40 years old	Postal code	54600
Gender	Both	Approval date	2023-12-25, 1402/10/04
Phase	N/A	Ethics committee reference number	IRB/2023/136
Groups that have been masked	Outcome assessor	Health conditions studied	
Sample size	Target sample size: 44	<u>1</u>	
Randomization (investigator's opinion)	Randomized	Description of health condition studied	Gastrocnemius tightness
Randomization description	Randomization will be done with random computer number generator. Assign unique identification numbers to participants, then use a reliable software tool to generate a list of random numbers. Match these numbers to participant IDs and allocate individuals to different study groups based on the sorted random numbers. Ensure that the randomization process is concealed and documented for transparency and integrity.	ICD-10 code	
Blinding (investigator's opinion)	Single blinded	ICD-10 code description	
Blinding description	It will be a Single blinded study. outcome assessor will be blind to the intervention received by the participants. To achieve single blinding, the outcome assessor is not informed about the treatment allocation of the participants and remains unaware of which group received the intervention being studied.	Primary outcomes	
Placebo	Not used	<u>1</u>	
Assignment	Parallel	Description	Pain
Other design features		Timepoint	Before intervention and 4 weeks after intervention
Secondary Ids	empty	Method of measurement	Numeric pain rating scale
		<u>2</u>	
		Description	Range of motion
		Timepoint	Before intervention and 4 weeks after intervention
		Method of measurement	Universal goniometer
		<u>3</u>	
		Description	Functional activities
		Timepoint	Before intervention and 4 weeks after intervention
		Method of measurement	Foot functional index
		Secondary outcomes	
			empty

Intervention groups

1

Description

Intervention group A: post isometric relaxation:
Participants of group A received post isometric relaxation exercise, 3 times a week for 4 weeks.

Category

Rehabilitation

2

Description

Intervention group B: strain-counterstrain technique:
Participants of group B received strain-counterstrain technique, 3 times a week for 4 weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Arif Memorial Teaching Hospital

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Street address

35-km ferozepur road Lahore

City

Lahore

Postal code

54600

Phone

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Email

ifra.awan@rlmc.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Street address

35-km ferozepur road Lahore

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Email

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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

Rashid Latif Medical College

Proportion provided by this source

100

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

Rashid Latif Medical College

Full name of responsible person

Aimen Tahir

Position

Physiotherapist

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

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Latest degree

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Person responsible for updating data

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Position
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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available