Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effects of the suboccipital muscle inhibition technique on pain, functional disability, and quality of life in patients with sacroiliac joint pain

Protocol summary

Study aim
To determine effects of the sub occipital muscle inhibition technique on pain, functional disability, and quality of life in patients with sacroiliac joint pain.

Design
It will be randomized controlled trial

Settings and conduct
The study will be conducted in Fatima memorial hospital – Physical therapy clinic and Pakistan Society Rehabilitation and Disability physiotherapy clinic, Nur International University Rehabilitation clinic.

Participants/Inclusion and exclusion criteria
INCLUSION CRITERIA • Both genders will be included in this study. • Patients between the age of 18 to 25 years. • Sacroiliac pain of chronic level with the duration more than 3months. • Patients with positive Leslett's criteria (The Leslett's criteria consist of 5 pain provocation test names as Compression test, Distraction test, thigh thrust, Gaenlsen test and Faber test. According to the criteria out of these five tests, if any of the three test indicates positive findings than it is labelled as sacroiliac pain. • The patient with ODI score between 20-40%. • Patients with NPRS score more than 3 points. EXCLUSION CRITERIA • Subjects who had signs of recent surgery • Lumbar spine pathologies like radiculopathies disc herniation, spondylolisthesis, sensory changes in lower back region, osteoporosis • Deformities like torticollis, forward head posture. • Any neurological defect • Any inflammatory or malignant type of pain • Any systemic disease • Pregnancy • Infection • Fractures in the spine

Intervention groups
intervention group will receive conventional treatment and suboccipital inhibition technique (performed for 4min)

Main outcome variables
Numeric pain rating (NPRS) Oswestry Disability Index for disability Health Questionnaire EQ 5D

General information

Reason for update
Trial completed

Acronym
RCT

IRCT registration information
IRCT registration number: **IRCT20190717044238N8**
Registration date: **2023-04-03, 1402/01/14**
Registration timing: **registered_while_recruiting**

Last update: **2023-08-08, 1402/05/17**
Update count: **1**

Registration date
2023-04-03, 1402/01/14

Registrant information

Name
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The University of Lahore
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-02-28, 1401/12/09

Expected recruitment end date
2023-07-30, 1402/05/08

Actual recruitment start date
2023-03-10, 1401/12/19

Actual recruitment end date
2023-08-02, 1402/05/11

Trial completion date

2023-08-02, 1402/05/11

Scientific title
Effects of the suboccipital muscle inhibition technique on pain, functional disability, and quality of life in patients with sacroiliac joint pain

Public title
Physiotherapy effects on SIJ pain

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Both gender Age 18-25 years old Sacroiliac pain of chronic level with the duration more than 3months Patients with positive Leslett's criteria (The Leslett's criteria consist of 5 pain provocation test names as Compression test, Distraction test, thigh thrust, Gaenlsen test and Faber test) According to the criteria out of these five tests, if any of the three test indicates positive findings than it is labelled as sacroiliac pain. The patient with ODI score between 20-40%.• Patients with NPRS score more than 3 points.

Exclusion criteria:
Subjects who had signs of recent surgery Lumbar spine pathologies like radiculopathies disc herniation, spondylolisthesis, sensory changes in lower back region, osteoporosis Deformities like torticollis, forward head posture. Any neurological defect Any inflammatory or malignant type of pain Any systemic disease Pregnancy Infection Fractures in the spine

Age
From **18 years** old to **25 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **38**
Actual sample size reached: **38**

Randomization (investigator's opinion)
Randomized

Randomization description
Patients will be randomly assigned into 2 groups using a computer generated random number table. All those random numbers will be enclosed in sealed envelopes. A third person (who will further not be a part of research) will open envelopes and the patient will be allocated to the mentioned group accordingly

Blinding (investigator's opinion)
Single blinded

Blinding description
An in dependent assessor, who will be a senior and experienced physiotherapist and will not be part of the study, will assess patient.

Placebo
Not used

Assignment
Parallel

Other design features
no

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Research and Ethics Committee

Street address
Riphah International University Lahore, Pakistan

City
Lahore

Postal code
54000

Approval date
2023-01-02, 1401/10/12

Ethics committee reference number
REC/RCR & AHS/23/0104

Health conditions studied

1

Description of health condition studied
Sacroiliac joint pain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Pain intensity

Timepoint
will be measure on baseline 3 weeks to 6 weeks

Method of measurement
NPRS questionnaire

2

Description
Disability

Timepoint
will be measure on baseline 3 weeks to 6 weeks

Method of measurement
Oswestry Disability Index for disability

3

Description
Quality of life

Timepoint
will be measure on baseline 3 weeks to 6 weeks

Method of measurement
Health Questionnaire EQ 5D

Secondary outcomes

empty

Intervention groups

1

Description
Control group: Group A will receive conventional treatment only which is hot pack for 10 minutes, transcutaneous electrical nerve stimulator (TENS) with 3hz frequency of burst mode for time duration of 10 minutes, therapeutic ultrasound with frequency of 1MHz for a time duration of 5 minutes and muscle energy techniques (2sets, 5repitions, 10 sec hold), will be given to the subject.
Category
Treatment - Other

2

Description
Intervention group: : Group B will receive conventional treatment which is hot pack for 10 minutes, transcutaneous electrical nerve stimulator (TENS) with 3hz frequency of burst mode for time duration of 10 minutes, therapeutic ultrasound with frequency of 1MHz for a time duration of 5 minutes and muscle energy techniques (2sets, 5repitions, 10 sec hold), will be given to the subject and new treatment which is sub occipital inhibition technique (performed for 4min until the tissues and muscles were relaxed. During the procedure, patients were asked to keep their eyes closed to avoid eye movements that affect the sub occipital muscle tone)
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Fatima memorial hospital-Physical therapy clinic, Pakistan Society Rehabilitation and Disability phy
Full name of responsible person
Dr. Ahmed Jamal
Street address
61 froze purr road Lahore, Pakistan
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Sponsors / Funding sources

1

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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
Riphah International University
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
Riphah International University
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Fareeha Amjad
Position
Associate Professor
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Other areas of specialty/work
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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
Undecided - It is not yet known if there will be a plan to make this available

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