

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effect Of Sustained Natural Apophyseal Glide Versus Cervical Manipulation In Treatment Of Mechanical Neck Pain

#### Protocol summary

##### Study aim

To identify the effects of sustained natural Apophyseal glide versus Cervical Manipulation in treatment of Mechanical neck pain

##### Design

Randomized Clinical Trial,50 subjects (25 in each group) will be randomly allocated,single blinded study

##### Settings and conduct

study conducted at KKT Orthopedic Spine Center and Royal Institute of Medical Sciences,Multan ,Sample size will be 50 individuals (25 each group) conducted in time duration of 6 months.group 1 patients got sustained natural Apophyseal glide and group 2 got cervical manipulation.

##### Participants/Inclusion and exclusion criteria

inclusion criteria-1.- 50 patients both males and females with mechanical neck pain aged between 22 to 65 will be included.2-• hypo-mobility of the cervical range of motion.3-• Non -discogenic neck pain, stiffness, muscle tension, headache and migraine. exclusion criteria-1-• Any contraindication to systemic manifestation (e.g. inflammation, infection, advanced degeneration, congenital malformation, trauma, cerebrovascular abnormalities).2-• Positive neurological examination e.g. presence of positive motor reflex, or sensory abnormalities indicating spinal root compression.3-• cervical spine surgery or stenosis ,metabolic or systemic disorders or cancer.-.

##### Intervention groups

Group A Subjects will be treated with Sustained Natural Apophyseal Glide (SNAG) which included two sessions per week. Patients in this group will receive a baseline treatment that is heating pad for 15 minutes before the treatment. Procedure will be repeat in sets of 5 to 10. Group B Subjects will be treated with Cervical Manipulation after baseline treatment that is heating pad for 15 minutes which included two sessions per week.

##### Main outcome variables

pain,disability and cervical range of motion

#### General information

##### Reason for update

##### Acronym

RCT

##### IRCT registration information

IRCT registration number: **IRCT20191023045212N1**

Registration date: **2020-04-02, 1399/01/14**

Registration timing: **prospective**

Last update: **2020-04-02, 1399/01/14**

Update count: **0**

##### Registration date

2020-04-02, 1399/01/14

##### Registrant information

##### Name

Sana Altaf

##### Name of organization / entity

KKT Orthopedic Spine Center,Multan

##### Country

Pakistan

##### Phone

+92 61 4580119

##### Email address

altafsana66@gmail.com

##### Recruitment status

**Not yet recruiting**

##### Funding source

##### Expected recruitment start date

2640-10-11, 2019/07/19

##### Expected recruitment end date

2641-02-08, 2019/11/19

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

## Scientific title

Effect Of Sustained Natural Apophyseal Glide Versus Cervical Manipulation In Treatment Of Mechanical Neck Pain

## Public title

Effect Of Sustained Natural Apophyseal Glide Versus Cervical Manipulation In Treatment Of Mechanical Neck Pain

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

- 44 patients both males and females with mechanical neck pain aged between 20 to 65 will be included
- hypo-mobility of the cervical range of motion
- Non - discogenic neck pain, stiffness, muscle tension, headache and migraine
- Comparable signs (pain associated with movement, or pain associated with specific functional activities.
- Painful cervical extension, local tenderness, and restricted inter-segmental motion.

### Exclusion criteria:

- Any contraindication to systemic manifestation (e.g. inflammation, infection, advanced degeneration, congenital malformation, trauma, cerebrovascular abnormalities). Positive neurological examination e.g. presence of positive motor reflex, or sensory abnormalities indicating spinal root compression
- cervical spine surgery or stenosis ,metabolic or systemic disorders or cancer
- Any associated pathology of the upper cervical region or upper limb that may cause overlapping with the clinical finding as referred pain from costotransverse joint, rotator cuff tendonitis, and cervical rib syndrome.

## Age

From **22 years** old to **65 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

- Outcome assessor

## Sample size

Target sample size: **50**

## Randomization (investigator's opinion)

Randomized

## Randomization description

The patients were randomly allocated into 2 groups to receive either the cervical manipulation or sustained natural Apophyseal glide .the randomization was done using lottery method

## Blinding (investigator's opinion)

Single blinded

## Blinding description

patients were blinded as they do not know there respected group,therapist who gave treatment and assess the outcome was blinded

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Riphah college of Rehabilitation and Allied Health Sciences

##### Street address

Quaid-e-Azam campus 28-M, Quaid-e-Azam ,Industrial Estate ,Kot Lakhpat ,Lahore.

##### City

Lahore

##### Postal code

54000

#### Approval date

2641-03-02, 2019/12/11

#### Ethics committee reference number

RCR&AHS/REC/MS-OMPT/O32

## Health conditions studied

### 1

#### Description of health condition studied

Mechanical neck pain can be define as it is most common musculoskeletal irritation that originates from posterior side of skull bone and radiates towards lower region of cervical vertebra of backbone and sometimes it also migrate into shoulders and arms as well.Cervical region pain is a most general problem, having a point occurrence of almost 13% and prevalence for lifetime is about 50 %.Mechanical neck pain infers that the there are many sources of neck pain that pain may be the result of supporting structures of spine like muscles and ligaments

#### ICD-10 code

M54.2

#### ICD-10 code description

Cervicalgia

## Primary outcomes

### 1

#### Description

pain will be primary outcome variable that will be measure by NPRS

#### Timepoint

outcome will be measured before the application of intervention and after 6 weeks of intervention application

#### Method of measurement

pain will be measure using NPRS,for cervical range of motion goniometer will be used,NDI for disability

## Secondary outcomes

### 1

#### Description

cervical range of motion and function in patient with mechanical neck pain

#### Timepoint

cervical range of motion and function

#### Method of measurement

inclinometer and NDI questionnaire will be use to measure cervical range of motion and function.

## Intervention groups

### 1

#### Description

Intervention group: Subjects will be treated with Sustained Natural Apophyseal Glide (SNAG) which included two sessions per week. Patients in this group will receive a baseline treatment that is heating pad for 15 minutes before the treatment. Procedure will be repeat in sets of 5 to 10 for 6 weeks

#### Category

Other

### 2

#### Description

Intervention group: Subjects will be treated with Cervical Manipulation after baseline treatment that is heating pad for 15 minutes which included two sessions per week for 6 weeks

#### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Kkt orthopedic spine center ,Multan

##### Full name of responsible person

Adeel Majeed

##### Street address

Al-Mustafa House , Gous-e-eAzam Road,Gilani Colony ,Multan.

##### City

Multan

##### Postal code

66000

##### Phone

+92 61 6304309

##### Fax

##### Email

adeel\_majeed@hotmail.com

##### Web page address

<http://www.kktpakistan.com>

### 2

#### Recruitment center

##### Name of recruitment center

Royal Institute Of Medical Sciences ,Multan

##### Full name of responsible person

Dr Rabab Kompal

##### Street address

Bosan Rd, A Block Gulgasht Colony, Multan, Punjab

##### City

Multan

##### Postal code

66000

##### Phone

+92 61 6223345

##### Email

dogarz90@gmail.com

##### Web page address

<http://www.rims.edu.pk>

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

RIMS,Multan

##### Full name of responsible person

Sana Altaf

##### Street address

tehsile chowk ,gulgasht,multan

##### City

Multan

##### Postal code

66000

##### Phone

+92 61 9200227

##### Fax

##### Email

rims.multan@yahoo.com

##### Web page address

<http://www.rims.edu.pk>

#### Grant name

Self

#### Grant code / Reference number

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

No

#### Title of funding source

Self

#### 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

Persons

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
RIMS,Multan  
**Full name of responsible person**  
Sana altaf  
**Position**  
Lecturer  
**Latest degree**  
Bachelor  
**Other areas of specialty/work**  
Physiotherapy  
**Street address**  
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**Postal code**  
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**Phone**  
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**Email**  
rims.multan@yahoo.com  
**Web page address**

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
RIMS,multan  
**Full name of responsible person**  
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**Position**  
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**Latest degree**  
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+92 42 32591427  
**Email**  
rims.multan@yahoo.com

## Person responsible for updating data

### Contact

**Name of organization / entity**  
RIMS,Multan  
**Full name of responsible person**  
Sana Altaf

### Position

lecturer

### Latest degree

Bachelor

### Other areas of specialty/work

Physiotherapy

### Street address

Tehsile chowk ,gulgasht ,multan

### City

Multan

### Province

punjab

### Postal code

66000

### Phone

+92 42 32591427

### Email

rims.multan@yahoo.com

## 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

Yes - There is 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

### Title and more details about the data/document

Effect of sustained natural Apophyseal glide versus cervical manipulation in treatment of mechanical neck pain.50 patients were randomly allocated in this trial .Neck disability index ,Numeric pain rating score and Goniometry was used .

### When the data will become available and for how long

after publication of this trial

### To whom data/document is available

students,practionners

### Under which criteria data/document could be used

for critical analysis of this trial

### From where data/document is obtainable

altafsana66@gmail.com

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

Applicant can request to access data through given Email address after 3 months of publication

### Comments