Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparison of Dry Needling and Kinesio Taping on Range of Motion, Pain Pressure Threshold, Neck Alignment, Disability and Static Balance on Forward Head Posture (FHP)

Protocol summary

Study aim
Comparison of Dry Needling and Kinesio Taping on Photogrammetric Data, Disability and Static Balance on Forward Head Posture (FHP)

Design
Randomize control trial, with parallel groups, single blind

Settings and conduct
The study is about people with a forward-looking condition. It is performed in the Faculty of Rehabilitation, Tehran University of Medical Sciences. First, individuals complete the consent form and their personal information questionnaire is completed. People are then randomly divided into two groups by tossing a coin. Evaluations are done once before the intervention in the first session, the second time after the intervention in the first session and the third time after the intervention in the third session

Participants/Inclusion and exclusion criteria
Inclusion criteria: cranio vertebral angle <50; woman with 20 to 40 years old. Exclusion criteria: participation in a study similar to the present study; history of neck fracture and vascular disease; contraindications of dry needles such as: systemic disease, fever, high anxiety; skin allergy to kinesiotype.

Intervention groups
1. Dry needling with stretching exercises; 2. Kinesiotape with stretching exercises

Main outcome variables
Pain (VAS), pain pressure threshold, cervical range of motion, cranio vertebral angle, cranio horizental angle, forward shoulder translation, scapular index, neck disability index, static balance

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20211017052787N1**
Registration date: **2021-11-28, 1400/09/07**
Registration timing: **prospective**

Last update: **2021-11-28, 1400/09/07**
Update count: **0**

Registration date
2021-11-28, 1400/09/07

Registrant information

Name
Sara Golzareh

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 21 6573 4351

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-12-06, 1400/09/15

Expected recruitment end date
2022-04-22, 1401/02/02

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of Dry Needling and Kinesio Taping on Range of Motion, Pain Pressure Threshold, Neck

Alignment, Disability and Static Balance on Forward Head Posture (FHP)

Public title
Comparison of Dry Needling and Kinesio Taping on Forward Head Posture (FHP)
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Women between the ages of 20 and 40 Cranio Vertebral Angle < 50
Exclusion criteria:
Participation in a study similar to the present study History of neck fracture and vascular disease Contraindications of dry needles such as: systemic disease, fever, high anxiety Skin Allergy to kinesiotype History of spinal and neuro skeletal disease or cervical and vertebral surgery Neck injury or trauma Bleeding disorders, treatment with anticoagulants, a history of seizures or epilepsy Fibromyalgia syndrome, diagnosis of mentaldisorders such as anxiety and depression, malignancy, pregnancy, infectious disease, inflammatory musculoskeletal disease.
Age
From **20 years** old to **40 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **44**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomization will be done in the form of a simple randomization method and the coin tossing method will be used. So that the face of the coin will be used for the kinesiotype group and the back of the coin will be used for the dry needle group. At the beginning of the study, by tossing a coin, it is decided that the person will enter the kinesiotype or dry needle group. In this way, if the coin comes on, the person will enter the kinesiotype group, and if the coin comes back, the person will enter the dry needle group.
Blinding (investigator's opinion)
Single blinded
Blinding description
The present study will be a single blind. In this way, the therapist, who is the evaluator and the data analyzer, will be aware of the study groups, but the participant will be unaware of the treatment groups. This means that the person in the kinesiotype group does not know about the treatment of the person in the dry needle group and does not know in which group he is. Because these two people will not meet each other.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Tehran University of Medical Sciences
Street address
Vice Chancellor for Research, 6th Floor, Central University Organization, Corner of Ghods St, Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
1417653761
Approval date
2021-11-07, 1400/08/16
Ethics committee reference number
IR.TUMS.MEDICINE.REC.1400.884

Health conditions studied

1

Description of health condition studied
Forward head posture
ICD-10 code
R29.3
ICD-10 code description
Abnormal posture

Primary outcomes

1

Description
Cranio Vertebral Angle
Timepoint
Before Intervention- After the first and third sessions
Method of measurement
Photogrammetry_digital camera

2

Description
Cranio Horizental Angle
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Photogrammetry_digital camera

3

Description
Pain
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Visual analogue scale

4

Description
Pain pressure threshold
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Algometer

5

Description
Cervical range of motion
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Goniometer

6

Description
Neck Disability Index
Timepoint
Before Intervention and after third sessions
Method of measurement
Persian version of neck disability index questionnaire

7

Description
Scapular Index
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Ruler

8

Description
Forward Shoulder Translation
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Ruler

9

Description
Static Balance
Timepoint
Before Intervention- After the first session and third sessions
Method of measurement
Chronometer

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: dry needling with stretching exercises. In this way, the reduction dry needle technique will be applied at the motorpoint point of the upper trapezius muscle on both sides. The needle rotates counterclockwise for 15 seconds (one rotation per second) and then stays in place for 20 minutes. Also, pectoralis muscle stretching exercises, neck extensions and sternocleidomastoid are taught to be performed with specific repetitions (2 sets, each set 10 repetitions, each repetition pauses for 30 seconds). Interventions will take place in three sessions on every other day.
Category
Rehabilitation

2

Description
Intervention group: kinesio tape with stretching exercise. An inhibitory technique with 15 to 25% tension kinesiotype will be performed for the upper trapezius muscle on both sides. The I-band is cut from the tip and the initial part is glued to the clavicle about two inches below the junction of the upper trapezius, then the shoulder goes to the adduction and the neck to the contra lateral flexion, and the tip is parallel to the muscle fibers with 15 to 25% tension. finally the end of the non-tension type is glued to the occiput. Exercises are like a dry needle group. Interventions will be performed in three sessions on every other day.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
school of Rehabilitation, Tehran University of Medical Sciences
Full name of responsible person
Sara Golzareh
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Full name of responsible person
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Deputy for Research,6th Floor, Tehran University of Medical Sciences, Next to Ghods Street, Keshavarz Boulvard
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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
Deputy for Research
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
Tehran University of Medical Sciences
Full name of responsible person
Sara Golzareh
Position
Student
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
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Person responsible for scientific inquiries

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full Professor, PT, Ph.D
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Person responsible for updating data

Contact
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
Because sharing IPD is useless according to the our study, We should consider all the sample size.
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Not applicable
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
Not applicable
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
The results of the primary outcome measure will be shared.
When the data will become available and for how long
These data will become available 2 months after publication.
To whom data/document is available
The results will be available for people working in academic instutions.
Under which criteria data/document could be used
people can use the data only for the rehabilitative purposes.
From where data/document is obtainable
Miss Sara Golzareh will be in charge of communication via E-mail: s.golzareh94@gmail.com
What processes are involved for a request to access data/document
After receiving the request and the main purposes for needing the data, we will response to the request maximally to one month.
Comments