Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

The Effectiveness of Tecar Therapy on Improving Pain and Functional Disability of Neck and Shoulder in Patients with Myofascial Pain Syndrome in Upper Trapezius

Protocol summary

Study aim

Determination of the effect of TECAR therpy on reducing pain and improving neck and shoulder function in patients with myofacial pain syndrome in upper trapezius

Design

The study will be conducted as a randomized clinical trial.The patients will be divided to 2 groups of intervention and control using block randomization method.The control group will be under stretching exercises of upper trapezius and taking acetaminophen tablets with Tizanidine tablets.The intervention group will also undergo TECAR therapy, upper trapezius stretching exercises and acetaminophen tablets with Tizanidine tablets.

Settings and conduct

The study will be conducted as a randomized clinical trial including all patients aged 18-60 years with upper trapezius muscle myofascial pain syndrom who have pain for at least one month and VAS score greater than 3 and refer to physical medicine and rehabilitation clinic at the specified time.The diagnostic method is based on physical examination.The patients will be divided to 2 groups of intervention and control. All patients will be evaluated for pain and disability through VAS, NDI and SPADI.

Participants/Inclusion and exclusion criteria

The study population consisted of all patients 18-60 years old with upper trapezius muscle myofascial pain who had pain for at least one month and VAS score greater than 3 and referred to physical medicine and rehabilitation clinic at the specified time. Exclusion criteria: diseases or conditions that interfere with the desired treatment.

Intervention groups

The control group will be under stretching exercises of upper trapezius and taking acetaminophen tablets with Tizanidine tablets.The intervention group will also undergo TECAR therapy, upper trapezius stretching exercises and acetaminophen tablets with Tizanidine tablets.

Main outcome variables

Improving Pain and Functional Disability of Neck and Shoulder

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210623051688N1**
Registration date: **2021-07-22, 1400/04/31**
Registration timing: **prospective**

Last update: **2021-07-22, 1400/04/31**
Update count: **0**

Registration date

2021-07-22, 1400/04/31

Registrant information

Name

Soroush Sadri

Name of organization / entity

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-07-23, 1400/05/01

Expected recruitment end date

2022-05-22, 1401/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effectiveness of Tecar Therapy on Improving Pain and Functional Disability of Neck and Shoulder in Patients with Myofascial Pain Syndrome in Upper Trapezius

Public title

The Effectiveness of Tecar Therapy on Improving Pain and Functional Disability of Neck and Shoulder in Patients with Myofascial Pain Syndrome in Upper Trapezius

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Myofascial pain in superior trapezius muscle diagnosed by clinical examination and presence of point trigger and band taut Consent for being included in the study No therapeutic intervention in the recent 30 days Pain for at least 1 month and VAS score higher than 3 Age between 18 to 60 Referral at the appointed time to the Physical Medicine and Rehabilitation clinic

Exclusion criteria:

Surgery or Cervical Fracture in past 2 years Pregnancy-Lactation Infection Coagulation disorders Using oral or parenteral corticosteroids Using oral or parenteral narcotics Cervical Myelopathy or Radiculopathy Psychologic disorders or Cognitive Impairments

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Diagnosis will be done by clinical examination and presence of trigger point and taut band. The patients will be divided to 2 groups of intervention(TECAR THERAPY, drug, exercise) and control (drug and exercise) using block randomization method. After admission of patients to the Physical Medicine and Rehabilitation clinic , The Physiatrist will examine the patient and refer him to the practitioner. The practitioner divided the patients into two groups.(randomization will be done by the practitioner and the examiner is blinded) After intervention, the patient will be examined by the specialist (who is blided) for the second time.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Factorial

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Building No. 4, Vice Chancellor for Research and Technology, Isfahan University of Medical Sciences, Hezar Jerib Street

City

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Postal code

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Approval date

2021-06-21, 1400/03/31

Ethics committee reference number

IR.MUI.MED.REC.1400.219

Health conditions studied

1

Description of health condition studied

Myofascial Pain Syndrome in Upper Trapezius

ICD-10 code

M79.1

ICD-10 code description

Myalgia

Primary outcomes

1

Description

Pain and Functional Disability of Neck and Shoulder

Timepoint

Before the intervention, immediately after the end of the intervention and one month after the end of the intervention

Method of measurement

Visual Analogue Scale(VAS)-Neck Disability Index(NDI)-Shoulder Pain and Disability Index(SPADI)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: TECAR therapy is a long-wave diathermy that is performed for 6 sessions, 2 sessions per week for 3 weeks, for 20 minutes per session.
Category
Treatment - Devices

2

Description
Intervention group: Upper Trapezius stretching exercises 9 times a day (3 times in the morning-3 times noon-3 times at night) and 30 seconds each time
Category
Rehabilitation

3

Description
Intervention group: Taking acetaminophen 325 mg tablets daily with 4 mg tizanidine tablets in the form of taking a quarter tablet in the first 3 nights and then a second tablet every night
Category
Treatment - Drugs

4

Description
Control group: Upper Trapezius stretching exercises 9 times a day (3 times in the morning-3 times noon-3 times at night) and 30 seconds each time
Category
Rehabilitation

5

Description
Control group: Taking acetaminophen 325 mg tablets daily with 4 mg tizanidine tablets in the form of taking a quarter tablet in the first 3 nights and then a second tablet every night
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
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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
Esfahan University of Medical Sciences
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

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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
Not applicable
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