

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 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 therapy on reducing pain and improving neck and shoulder function in patients with myofascial 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 syndrome 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)

Phone

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Email address

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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	Not blinded
Actual recruitment start date	Blinding description
empty	Placebo
Actual recruitment end date	Not used
empty	Assignment
Trial completion date	Factorial
empty	Other design features
Scientific title	Secondary Ids
The Effectiveness of Tecar Therapy on Improving Pain and Functional Disability of Neck and Shoulder in Patients with Myofascial Pain Syndrome in Upper Trapezius	empty
Public title	Ethics committees
The Effectiveness of Tecar Therapy on Improving Pain and Functional Disability of Neck and Shoulder in Patients with Myofascial Pain Syndrome in Upper Trapezius	1
Purpose	Ethics committee
Treatment	Name of ethics committee
Inclusion/Exclusion criteria	Ethics committee of Isfahan University of Medical Sciences
Inclusion criteria:	Street address
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	Building No. 4, Vice Chancellor for Research and Technology, Isfahan University of Medical Sciences, Hezar Jerib Street
Exclusion criteria:	City
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	Isfahan
Age	Province
From 18 years old to 60 years old	Isfahan
Gender	Postal code
Both	7346181746
Phase	Approval date
3	2021-06-21, 1400/03/31
Groups that have been masked	Ethics committee reference number
No information	IR.MUI.MED.REC.1400.219
Sample size	Health conditions studied
Target sample size: 50	1
Randomization (investigator's opinion)	Description of health condition studied
Randomized	Myofascial Pain Syndrome in Upper Trapezius
Randomization description	ICD-10 code
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 blinded) for the second time.	M79.1
Blinding (investigator's opinion)	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

Isfahan University of Medical Sciences

Full name of responsible person

Soroush Sadri

Street address

Isfahan University of Medical Sciences, Hezar Jerib Street

City

Isfahan

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81746-73461

Phone

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Email

research@mui.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Shaghayegh Haghjooy Javanmard

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

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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

Person responsible for general inquiries

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Soroush Sadri

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine

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Person responsible for updating data

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Soroush Sadri

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine

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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