

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Jul 2026

Comparative study of the effectiveness of plant extract combinations from three herbs including Salvia limbata, Equisetum Arvense and Myrtus communis spray on the decrease of the amount of sweating among healthy and mature women.

Protocol summary

Study aim

The purpose of this study, which was carried out on triple-blind clinical trial, is to investigate the antiperspirant effect of plant extract combinations from three herbs of Salvia limbata, Equisetum Arvense and Myrtus communis spray

Design

The clinical trial has a control group whit non-randomized Triple Blind parallel groups.

Settings and conduct

The study group consisted of females between 18 and 40 years old. Participants entered the study consciously after completing a briefing on the research objectives and how to complete the questionnaires and forms, as well as how to properly use the spray, and after filling out the consent form. This study was conducted using Triple Blind method (lack of knowledge of the participants the researcher and statistical consultant on the allocation of study groups until the end of data analysis). For each of the 24 participants in the study, consisted of two treatment group on the axillary region were inserted pads with hydroalcoholic extract of Salvia limbata, Equisetum Arvense and Myrtus communis in a mixture form in 5% ethano and the individuals were given of physical activity in the sports club of the dormitory, and then, after 2 hours the pads were collected from the axillary region and redistributed.

Participants/Inclusion and exclusion criteria

18-40 year-old women: No history of allergy to natural anti-perspirants and natural ingredients, cutaneous lesion in axillary region, history of metabolic disease and no use of anti-histamine medications at the time of the study.

Intervention groups

The pads soaked in the extracts of the said plants was pasted in one area of the right or left axillary and a

control pad (placebo) was used on the other side.

Main outcome variables

Perspiration

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190904044695N1**

Registration date: **2019-10-21, 1398/07/29**

Registration timing: **retrospective**

Last update: **2019-10-21, 1398/07/29**

Update count: **0**

Registration date

2019-10-21, 1398/07/29

Registrant information

Name

Mahdi Tavakolizadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-06-22, 1398/04/01

Expected recruitment end date

2019-07-01, 1398/04/10

Actual recruitment start date

2019-07-01, 1398/04/10

Actual recruitment end date

2019-07-11, 1398/04/20

Trial completion date

2019-07-11, 1398/04/20

Scientific title

Comparative study of the effectiveness of plant extract combinations from three herbs including Salvia limbata, Equisetum Arvense and Myrtus communis spray on the decrease of the amount of sweating among healthy and mature women.

Public title

The study of antiperspirant effect of plant extract combinations from three herbs of Salvia limbata, Equisetum Arvense and Myrtus communis spray.

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

No history of hypersensitivity to natural anti-perspiration substances and compounds. No cutaneous lesion in axillary region. No history of metabolic disease Not taking antihistamine drugs while studying

Exclusion criteria:

Use of antiperspirant and anticholinergic drugs People with thyroid or metabolic diseases Sensitivity to natural and skin products

AgeFrom **18 years** old to **40 years** old**Gender**

Female

Phase

N/A

Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser
- Data and Safety Monitoring Board

Sample sizeTarget sample size: **24**Actual sample size reached: **24****Randomization (investigator's opinion)**

Not randomized

Randomization description**Blinding (investigator's opinion)**

Triple blinded

Blinding description

The participants, researcher, clinical caregiver, outcome analyst, the analyzer and data monitoring safety committee were unaware of the allocation of study groups. As such, they have not been able to detect, identify or even observe the pads

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Zanjan University of Medical Sciences

Street address

Zanjan Province University of Medical Sciences & Health services, first of Jomhuri Ave, Azadi Blvd, Zanjan

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Zanjan

Province

Zanjan

Postal code

4515613191

Approval date

2019-06-11, 1398/03/21

Ethics committee reference number

IR.ZUMS.REC.1398.080

Health conditions studied**1****Description of health condition studied**

Sweating

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Weight difference of axillary pads

Timepoint

At the beginning of study and 2 hours after exercise

Method of measurement

Scale

Secondary outcomes

empty

Intervention groups**1****Description**

- Intervention group: The study group consisted of females between 18 and 40 years old. Participants entered the study consciously after completing a briefing on the research objectives and how to complete the

questionnaires and forms, as well as how to properly use the spray, and after filling out the consent form. This study was conducted using Triple Blind method (lack of knowledge of the participants the researcher and statistical consultant on the allocation of study groups until the end of data analysis). For each of the 24 participants in the study, on the axillary region were inserted pads with hydroalcoholic extract of *Salvia limbata*, *Equisetum Arvense* and *Myrtus communis* in a mixture form in 5% ethano and the individuals were given of physical activity, and then, after 2 hours the pads were collected from the axillary region and redistributed. Weight differences were recorded before and after these two hours. This should have been done for three consecutive days

Category
N/A

2

Description

The study group consisted of females between 18 and 40 years old. Participants entered the study consciously after completing a briefing on the research objectives and how to complete the questionnaires and forms, as well as how to properly use the spray, and after filling out the consent form. This study was conducted using Triple Blind method (lack of knowledge of the participants the researcher and statistical consultant on the allocation of study groups until the end of data analysis). For each of the 24 participants in the study, consisted of two treatment group on the axillary region were inserted pads with hydroalcoholic extract of *Salvia limbata*, *Equisetum Arvense* and *Myrtus communis* in a mixture form in 5% ethano and the individuals were given of physical activity in the sports club of the dormitory, and then, after 2 hours the pads were collected from the axillary region and redistributed. Weight differences were recorded before and after these two hours. This should have been done for three consecutive days, and finally the mean weight difference of the pads in three days was considered as the criterion.

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Avini Dormitory

Full name of responsible person
Mahdi Tavakolizadeh

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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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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Zanzan 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
Zanzan University of Medical Sciences

Full name of responsible person
Mahdi Tavakolizadeh

Position
Assistant professor

Latest degree
Ph.D.

Other areas of specialty/work
Medical Pharmacy

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Other areas of specialty/work

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Latest degree

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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