

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

The effect of combined yoga and pilates training on sexual hormones, leptin, cortisol, glucose homeostasis and tumor markers on breast cancer survivors

Protocol summary

Study aim

The effects of a combined yoga and pilates training in serums sex hormones, leptin, cortisol, glucose homeostasis and biomarkers in breast cancer survivors

Design

In this study, 30 breast cancer survivors will be voluntarily attended. Which are randomly divided into two groups of experimental group (n=15) and control group (n=15).

Settings and conduct

The present study is a randomized controlled trial on breast cancer survivors in Rasht city. Subjects will attend a combined yoga and pilates training program for 12 weeks. Measurement of some physiological factors and blood level of tumor markers and hormones before and after 12 weeks of circular training will be performed.

Participants/Inclusion and exclusion criteria

inclusion criteria: Ability to perform exercise training with oncologist approval, underwent partial mastectomy, termination of chemotherapy exclusion criteria: More than three consecutive sessions or four intermittent sessions absence from the training injury during training

Intervention groups

Intervention group: 12 weeks of combined yoga and pilates training, three sessions per week, 75 minutes each session. Exercise training program consists of 10 minutes warming up, 30 minutes pilates training, 30 minutes yoga training and 5 minutes cooling down
Control group: 12 weeks. routine daily activities

Main outcome variables

sex hormones, leptin, cortisol, glucose homeostasis and biomarkers

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150531022498N34**

Registration date: **2020-06-27, 1399/04/07**

Registration timing: **prospective**

Last update: **2020-06-27, 1399/04/07**

Update count: **0**

Registration date

2020-06-27, 1399/04/07

Registrant information

Name

Ramin Shabani

Name of organization / entity

Islamic Azad University

Country

Iran (Islamic Republic of)

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+98 13 3375 2715

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-06-29, 1399/04/09

Expected recruitment end date

2020-09-30, 1399/07/09

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of combined yoga and pilates training on

sexual hormones, leptin, cortisol, glucose homeostasis and tumor markers on breast cancer survivors

Public title
Effect of combined training on breast cancer survivors

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
 Ability to perform exercise training with oncologist approval underwent partial mastectomy termination of chemotherapy age between 35-50
Exclusion criteria:
 More than three consecutive sessions or four intermittent sessions absence from the training injury during training

Age
From **35 years** old to **50 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
The present study is a randomized controlled trial that thirty breast cancer survivors were selected as participants in the research process. After the necessary investigations and based on the information of the completed questionnaires, the subjects were divided into two groups of 15 people using a lottery by simple random method.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
 Ethics Committee of Azad University, Lahijan Branch
Street address
 Shaghayegh Street, East Kashef Street, Lahijan City
City
 Lahijan
Province
 Guilan
Postal code

4416939515
Approval date
 2020-06-09, 1399/03/20
Ethics committee reference number
 IR.IAU.LIAU.REC.1399.008

Health conditions studied

1

Description of health condition studied
 Multiple Sclerosis (MS)
ICD-10 code
 G35
ICD-10 code description
 Multiple sclerosis

Primary outcomes

1

Description
 Fasting Blood Sugar
Timepoint
 before and after the end of intervention
Method of measurement
 Serum levels using Enzymatic method

2

Description
 CA 15-3 tumor marker
Timepoint
 before and after the end of intervention
Method of measurement
 Serum levels using Eliza method

3

Description
 CA 125 tumor marker
Timepoint
 before and after the end of intervention
Method of measurement
 Serum levels using Eliza method

4

Description
 CEA tumor marker
Timepoint
 before and after the end of intervention
Method of measurement
 Serum levels using Eliza method

5

Description
 Cortisol hormone
Timepoint
 before and after the end of intervention
Method of measurement

Serum levels using Eliza method

6

Description

Estrogen Hormone

Timepoint

before and after the end of intervention

Method of measurement

Serum levels using Eliza method

7

Description

Testosterone Hormone

Timepoint

before and after the end of intervention

Method of measurement

Serum levels using Eliza method

8

Description

SHBG

Timepoint

before and after the end of intervention

Method of measurement

Serum levels using Eliza method

Secondary outcomes

1

Description

HbA1C

Timepoint

Before and after the end of interventions

Method of measurement

Serum levels using Enzymatic method

2

Description

Insulin hormone

Timepoint

Before and after the end of interventions

Method of measurement

Serum levels using Eliza method

3

Description

Leptin hormon

Timepoint

Before and after the end of interventions

Method of measurement

Serum levels using Eliza method

Intervention groups

1

Description

Intervention group: 12 weeks of combined yoga and pilates training, three sessions per week, 75 minutes each session. Exercise training program consists of 10 minutes warming up, 30 minutes pilates training, 30 minutes yoga training and 5 minutes cooling down

Category

Other

2

Description

Control group: 12 weeks. routine daily activities

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Guilan Oncology Centre

Full name of responsible person

Dr Hamid Saeidi

Street address

Golsar Street, Namaz Blv.

City

Rasht

Province

Guilan

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hamidsaedi53@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Ali Delpasand

Street address

Lakan St., Poltaleshan Blv. , Rasht, Gilan, Iran

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shabani_msn@yahoo.com

Grant name

Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

No

Title of funding source
En Islamic Azad University

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
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Islamic Azad University

Full name of responsible person
Samane Ebrahimpour

Position
PHD candidate

Latest degree
Master

Other areas of specialty/work
exercise physiology

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Islamic Azad University Rasht Branch, Taleshan Bridge, Rasht

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Person responsible for scientific inquiries

Contact

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Position
Associate Professor

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Person responsible for updating data

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Latest degree
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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