Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 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

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Iran (Islamic Republic of)

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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.
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Guilan
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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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Email
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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Person responsible for scientific inquiries

Contact

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Position
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Latest degree
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Other areas of specialty/work
Exercise physiology

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Person responsible for updating data

Contact

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Full name of responsible person
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Position
PHD candidate

Latest degree
Master

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