

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Effect of Chlorella supplementation on systematic symptoms and serum levels of prostaglandins, inflammatory and oxidative markers in women with primary dysmenorrhea

Protocol summary

Summary

This study is a double blind clinical trial on 44 young girls aged 18 to 35 years in Ahvaz. In order to collect information questionnaire will be used . After obtaining informed consent, the subjects will be divided into two groups (n = 22) and control (n = 22).The intervention group will receive 5 chlorella soft gel daily one week before the start of the menstrual cycle for 2 months, the control group will receive 5 placebo soft gell. Dysmenorrhea severity will be measured using a visual analog index (Visual Analog Scale). the length of dysmenorrhea pain will be recorded as well as the number of days and number of hours per day during the cycle. The verbal multidimensional system questionnaire of dysmenorrhea will be used to search systematic symptoms. For Laboratory evaluation, blood samples will be obtained after 8-12 hours fasting, at the baseline and the end of the second cycle. Blood samples, after the 0.5 to one hour, will be centrifuged at 2000 rpm and serum will be separated and will be kept at - 70 ° C for laboratory tests .The hs-CRP PGE2, PGF2a will be measured by ELISA. MDA is measured by TBARS test.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017060610181N11**
Registration date: **2017-07-07, 1396/04/16**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-07-07, 1396/04/16

Registrant information

Name

Fatemeh Heidari

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Ahvaz University of Medical Sciences

Expected recruitment start date

2017-06-22, 1396/04/01

Expected recruitment end date

2017-08-23, 1396/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Chlorella supplementation on systematic symptoms and serum levels of prostaglandins, inflammatory and oxidative markers in women with primary dysmenorrhea

Public title

Effect of Chlorella supplementation on Dysmenorrhea

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: having regular menstrual periods, moderate or severe dysmenorrheal and being single

Exclusion criteria: pain throughout the menstrual cycle, sensitivity to non-steroidal anti-inflammatory drugs, use of any antioxidant supplements in the past three months, taking oral contraceptives, reproductive disorders and a history of any abdominal or pelvic surgery

Age

From **18 years** old to **35 years** old

Gender

Female

Phase

1-2

Groups that have been masked

No information

Sample size

Target sample size: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ahvaz University of Medical Sciences

Street address

Khuzestan-Ahwaz

City

Ahwaz

Postal code

61357-15794

Approval date

2017-05-22, 1396/03/01

Ethics committee reference number

IR.AJUMS.REC.1396.159

Health conditions studied

1

Description of health condition studied

primary Dysmenorrhea

ICD-10 code

N94.4

ICD-10 code description

Primary dysmenorrhoea

Primary outcomes

1

Description

PGE2

Timepoint

Before and after the intervention.

Method of measurement

Pg/ ml by ELISA.

2

Description

PGF2a

Timepoint

Before and after the intervention

Method of measurement

Pg/ ml by ELISA

3

Description

hs-CRP

Timepoint

Before and after the intervention

Method of measurement

µg/ml by ELISA

4

Description

MDA

Timepoint

Before and after the intervention

Method of measurement

µmol/l by TBARS

5

Description

severity of pain

Timepoint

Before and after the intervention

Method of measurement

Using Visual Analog Scale

6

Description

duration of pain

Timepoint

Before and after the intervention

Method of measurement

number of Days and hours of pain in cycle

7

Description

Systemic symptoms

Timepoint

Before and after the intervention

Method of measurement

verbal multidimensional system questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: soft gel Chlorella , 300 mg, 5 per day for 2 months

Category

Treatment - Drugs

2

Description

Control group: placebo Soft gel , 5 per day for 2 months

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Ahwaz University of Medical Sciences

Full name of responsible person

Dr. Fatemeh haidari

Street address

Jundishapur University of Medical Sciences, Ahvaz, Khuzestan

City

Ahvaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research of Ahvaz University of Medical sciences

Full name of responsible person

Dr.Makhmalzadeh

Street address

Ahvaz Golestan St., Ahvaz University of Medical Sciences

City

Ahvaz

Grant name

-

Grant code / Reference number

-

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

Yes

Title of funding source

Vice chancellor for research of Ahvaz University of

Medical sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Ahvaz University of Medical Sciences

Full name of responsible person

Dr Fatemeh Haidari

Position

Associate Professor.Faculty member

Other areas of specialty/work

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masters student

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty