

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jul 2026

Effect of oral magnesium supplement on lung function in patients with asthma

Protocol summary

Summary

Asthma is the most common chronic medical condition that leads to serious health and economic consequences. There is evidence that high intake of magnesium is effective on pulmonary function, and reduce sensitivity of bronchial. Most assessments of asthma based on symptoms and lung function testing , Quality of life is a concept that has recently been considered in the management of asthma. The purpose of this study was to evaluate the effect of oral magnesium supplementation on lung function, quality of life, asthma control and inflammatory factors in adult patients with asthma . Methods: In this double- blind clinical trial, 100 patients (53 male, 47 female), 19-55 years old with asthma were randomly assigned to two groups. Group supplemented daily received 2 capsuls 150 mg magnesium citrate and placebo groups received 2 capsules contain lactose, in addition to standard asthma treatment for 2 months. Serum magnesium levels, quality of life, asthma control, IL-17 and spirometric parameters were measured at the beginning and end of the study. IL-17 levels were determined by ELISA.

General information

Acronym

-

IRCT registration information

IRCT registration number: **IRCT2012102811285N1**

Registration date: **2015-05-18, 1394/02/28**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-05-18, 1394/02/28

Registrant information

Name

Narges Fathi

Name of organization / entity

Jundishapur university

Country

Iran (Islamic Republic of)

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+98 61 1333 7168

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Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapur University

Expected recruitment start date

2012-05-31, 1391/03/11

Expected recruitment end date

2012-10-01, 1391/07/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of oral magnesium supplement on lung function in patients with asthma

Public title

Clinical trial on effect of oral magnesium supplement on lung function in patients with asthma

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Men and women 19 to 55 years of age who met the Global Initiative for Asthma (GINA) guidelines in 2008, FEV1more than80%, variability FEV1less than 20-30% for mild asthma and FEV1=60-80%, variability FEV1more than 30% for

moderate asthmatic; non smoker; who used only beta-agonist or inhaled corticosteroids. Exclusion criteria: evidence of cardiovascular disease, abnormal kidney function, other lung disease; alcohol abuse; uncontrolled hypertension; pregnancy or breastfeeding; have any change in own diet; current use of theophylline or leukotriene antagonists; any treatment likely to affect magnesium absorption or excretion, including diuretics or calcium containing medications; history of emergency room care or hospitalization for asthma in the last 6 months.

Age

From **19 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

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

Double blinded

Blinding description**Placebo**

Used

Assignment

Single

Other design features

-

Secondary Ids

empty

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

Abadan International Unit of Jundishapur University

Street address

Iran, Abadan, Infront of Abadan International University

City

Abadan

Postal code

393/61355

Approval date

2012-05-30, 1391/03/10

Ethics committee reference number

517- ETH

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

Asthma

ICD-10 code

x

ICD-10 code description

chronic lower respiratory disease

Primary outcomes**1****Description**

Force Vital Capacity

Timepoint

before intervention and two months after the intervention

Method of measurement

based on litter with spirometry

2**Description**

Forced expiratory volume in one second

Timepoint

before intervention and two months after the intervention

Method of measurement

based on %liter with spirometry

3**Description**

Density of interlukine 17 in blood

Timepoint

before intervention and two months after the intervention

Method of measurement

based on pico grams per milliliter with laboratory kit

4**Description**

FEV1/FVC

Timepoint

before intervention and two months after the intervention

Method of measurement

with spirometry

Secondary outcomes**1****Description**

magnesium concentration in serum

Timepoint

before intervention and two months after intervention

Method of measurement

based on mg/dl with laboratory kit

2

Description

level of magnesium intake

Timepoint

three times (two days and one weekend)

Method of measurement

based on mg/d with 24 hours intake for three times

3

Description

levels of quality of life

Timepoint

before intervention and two months after intervention

Method of measurement

numbers of quality of life quationnaire

4

Description

level of asthma control

Timepoint

before intervention and two months after intervention

Method of measurement

numbers of asthma control quationnaire

Intervention groups

1

Description

Intervention group:citrate magnesium,capsules 150 mg oral twice a day for two months

Category

Treatment - Drugs

2

Description

Contol group:placebo,150 mg capsules oral lactose, twice a day for two months

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Lung Clinic of Ahwaz Imam Khomeini Hospital

Full name of responsible person

Doctor Heshmat Alah Tavakol lung Disease Specialist

Street address

Ahwaz, Naderi

City

Ahwaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Abadan International Unit Of Ahwaz Jundishapur University

Full name of responsible person

Doctor Nader Saki

Street address

Flat three, Number 119, West Mordad avenue, Kian Pars, Ahwaz, Iran

City

Ahwaz

Grant name

طرح تحقیقاتی مصوب معاونت پژوهشی دانشگاه علوم پزشکی جندی شاپور

Grant code / Reference number

9109-B

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

Yes

Title of funding source

Abadan International Unit Of Ahwaz Jundishapur University

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

Abadan International Unit of Ahwaz Jundishapur University

Full name of responsible person

Narges Fathi

Position

Graduate Student Of Nutrition

Other areas of specialty/work

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Person responsible for scientific inquiries

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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