Clinical Trial Protocol
Iranian Registry of Clinical Trials

26 May 2026

The efficacy and safety of cinnarizine and sodium valproate in prophylaxis of migraine among children and adolescents aged 6 to 17: a randomized, double-blind, placebo-controlled clinical trial

Protocol summary

Study aim
We aim to investigate the efficacy and safety of cinnarizine and sodium valproate in pediatric migraine prevention and comparing to placebo

Design
Pragmatic, community based, parallel group, double blind, randomised controlled trial

Settings and conduct
Prospective clinical trial in Childrens' Medical Center, Tehran University f Medical Sciences, Tehran, Iran. All investigators, patients, and their parents are masked during the study.

Participants/Inclusion and exclusion criteria
Patients aged 6 to 17 years old with migraine (with or without aura), diagnosed according to the IHS criteria can be included. They have to have four or more migraine attack per 4 weeks; or sever dysfunction in daily activity. Headaches must not relate to any known structural brain lesion or other systemic conditions. Patients with chronic headache, complications of migraine or other migraine variants will be excluded. Focal neurologic deficit, history of diagnosed sensitivity to cinnarizine and sodium valproate, as well as pregnancy are other exclusion criteria. Patients who took prophylactic therapy for migraine within 8 weeks before study could not include into the study.

Intervention groups
Three arms in the study are 1) individuals receiving cinnarizine; 2) patients who will be under treatment with sodium valproate; and 3) participants getting placebo

Main outcome variables
Headache frequency; Headache intensity; More than 50% responder rate; Adverse effects

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT201206306907N4**
Registration date: **2012-09-15, 1391/06/25**
Registration timing: **prospective**

Last update: **2019-03-21, 1398/01/01**
Update count: **1**

Registration date
2012-09-15, 1391/06/25

Registrant information

Name
Mahmoudreza Ashrafi

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 21 6612 9252

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Recruitment status
Recruitment complete

Funding source
Tehran University of Medical Sciences

Expected recruitment start date
2009-10-23, 1388/08/01

Expected recruitment end date
2011-12-27, 1390/10/06

Actual recruitment start date
2015-02-18, 1393/11/29

Actual recruitment end date
2017-11-17, 1396/08/26

Trial completion date
2018-03-11, 1396/12/20

Scientific title

The efficacy and safety of cinnarizine and sodium valproate in prophylaxis of migraine among children and adolescents aged 6 to 17: a randomized, double-blind, placebo-controlled clinical trial

Public title
Cinnarizine and sodium valproate in prophylaxis of pediatric migraine .
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Patients with migraine (with or without aura), diagnosed according to the International Headache society criteria Patients who had at least four migraine attacks per 4 weeks; or sever dysfunction in daily and school activities during prospective baseline phase.
Exclusion criteria:
Chronic headache, complications of migraine or other migraine variant Children and adolescents with Focal neurologic deficit History of diagnosed sensitivity to each of drugs that used in the study Patients who took prophylactic therapy for migraine within 8 weeks before study. Headaches related to structural brain lesions Pregnancy
Age
From **6 years** old to **17 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **90**
Actual sample size reached: **109**
Randomization (investigator's opinion)
Randomized
Randomization description
Eligible outpatients were randomly assigned in a 1:1:1 ratio by permuted block randomization (block sizes of four) via an interactive web response system to receive either cinnarizine, sodium valproate or placebo.
Blinding (investigator's opinion)
Double blinded
Blinding description
The study medications were coded and administered by a nurse of our medical center who was not informed about the clinical characteristics of cases. Investigators, participants, and their parents were masked during the course of the study until the code was broken at the end of the trial. Cinnarizine, sodium valproate, and placebo were provided as identical tablets in similar shapes and sizes in neutral containers.
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
tehran university of medical science
Street address
16 azar avenue,medical ethics comittee
City
tehran
Province
Tehran
Postal code
1417653761
Approval date
2009-09-23, 1388/07/01
Ethics committee reference number
35461

Health conditions studied

1

Description of health condition studied
Migraine
ICD-10 code
G43
ICD-10 code description
Migraine

Primary outcomes

1

Description
frequency of headache
Timepoint
frequency of frequency of each attack in a month
Method of measurement
questionnaire

2

Description
intensity of headache
Timepoint
intensity of each attack
Method of measurement
Visual analogue scale (VAS)

Secondary outcomes

1

Description
adverse effects
Timepoint
in the double-blind phase of the study
Method of measurement
ask from participants and parents

2

Description
More than 50% responder rate
Timepoint
in the double-blind phase of the study and baseline
Method of measurement
ask from participants and parents

Intervention groups

1

Description
We randomly divided participants in 3 groups: cinnarizine group received one Cinnarizine tablet (37.5 mg for patients aged 6 to 11 and 50 mg for others aged 12 to 17) per day. All drugs had a same color, package, and shape. Patients could use analgesics for abortive treatment of acute migraine attacks during the study.At 4th, 8th and 12th weeks of the second phase of the study, follow up visits were done. Participants' diaries were checked and with detailed questionnaires, any medicine-related side effects were investigated.
Category
Prevention

2

Description
We randomly divided participants in 3 groups: sodium valproate group received 10-20 mg/kg/day of sodium valproate. All drugs had a same color, package, and shape. Patients could use analgesics for abortive treatment of acute migraine attacks during the study.At 4th, 8th and 12th weeks of the second phase of the study, follow up visits were done. Participants' diaries were checked and with detailed questionnaires, any medicine-related side effects were investigated.
Category
Prevention

3

Description
Control group: We randomly divided participants in 3 groups: placebo group received tablets similar to cinnarizine and sodium valproate groups in color, package, and shape. Patients could use analgesics for abortive treatment of acute migraine attacks during the study.At 4th, 8th and 12th weeks of the second phase of the study, follow up visits were done. Participants' diaries were checked and with detailed questionnaires, any medicine-related side effects were investigated.
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Clinic Of Children Medical Center Hospital of Tehran University of Medical Sciences(markaz tebbi)
Full name of responsible person
Dr Mahmoodreza Ashrafi
Street address
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Research Center of clinic Of Children Medical Center Hospital of Tehran University of Medical Scienc
Street address
Gharib avenue, Clinic Of Children Medical Center Hospital of Tehran University of Medical Sciences(markaz tebbi)
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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
Tehran 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

Tehran University of Medical Sciences

Full name of responsible person

Mahtab Ramezani

Position

General practitioner

Latest degree

Medical doctor

Other areas of specialty/work

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Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Dr Mahmoodreza Ashrafi

Position

Associate professor, Specialist in pediatrics neurologic disease

Latest degree

Specialist

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All collected data about primary and secondary outcomes

When the data will become available and for how long

After publication of paper

To whom data/document is available

To people working in academic institutions

Under which criteria data/document could be used

Data can be used if the authors' names were mentioned

From where data/document is obtainable

Email

What processes are involved for a request to access data/document

After receiving the request we will consult to all authors and the data can be share in a week

Comments