Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Jul 2026

Evaluation of multispecies probiotics on children and adolescents with migraine headaches during 3 months of treatment and a 3 months follow up period

Protocol summary

Study aim
Evaluation of multi-specious probiotics on prophylaxis of children and adolescents with common migraine headaches in 3 months therapeutic and 3 months follow up periods

Design
The clinical trial was randomized, parallel-group trial with blinded outcome assessment, designed for 54 patients.

Settings and conduct
Participants are selected according to inclusion criteria and after signing of the consent, will be divided randomly into 3 similar groups of prebiotics, prebiotics and vitamin D and placebo . Clinical findings, scales and questioners will be evaluated monthly . Blood sampling will be performed at the beginning and after 3 months of study . As a double-blind study, participants and evaluators are unaware of the substance's nature. After 3 months of therapy the patients will be followed for next 3 months .

Participants/Inclusion and exclusion criteria
6-18 years old patients with common migraine, normal vitamin D level, no underlying neurologic disease as well as medication, no use of antibiotics or probiotics in 2 recent weeks, Fill out the consent form.

Intervention groups
Patients who fill the inclusion criteria are randomly classified into three following groups: receive probiotics, probiotics with vitamin D, and a placebo. Symptoms, examination, quality of life, and headache severity are mentioned monthly for three months. Inflammatory factors and intestinal permeability characteristics are studied by laboratory tests at the beginning and end of the study.

Main outcome variables
Evaluation of multi-specious probiotics on intensity and frequency of headaches and quality of life of children and adolescents with common migraine .

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20110628006907N17**
Registration date: **2022-05-21, 1401/02/31**
Registration timing: **prospective**

Last update: **2022-05-21, 1401/02/31**
Update count: **0**

Registration date
2022-05-21, 1401/02/31

Registrant information

Name
Mahmoudreza Ashrafi

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 21 6612 9252

Email address
ashrafim@tums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-06-22, 1401/04/01

Expected recruitment end date
2022-10-23, 1401/08/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Evaluation of multispecies probiotics on children and adolescents with migraine headaches during 3 months of treatment and a 3 months follow up period

Public title
The prophylactic effect of probiotics on children and adolescents with migraine headache

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
Suffering from common migraine (headache without aura) according to the International Headache society criteria (IHS) Indication of migraine prophylactic treatment (at least four migraine attacks per 4 weeks; or severe dysfunction in daily and school activities during prospective baseline phase) Normal vitamin D level No systemic or underlying disease Other medication that affect the nervous system, such as anti- seizure medication, should not to be used simultaneously No antibiotic consumption in the recent 2 weeks Informed consent of parents

Exclusion criteria:
Underlying systemic or neurologic disease Simultaneous consumption of drugs such as anti-seizure medication that make an impact on nervous system Anti-biotic consumption (oral or parenteral) in the recent 2 weeks Another probiotic consumption in the recent 2 weeks The patient/parents do not agree to participate in the study

Age
From **6 years** old to **18 years** old

Gender
Both

Phase
2-3

Groups that have been masked

- Participant
- Care provider
- Outcome assessor
- Data analyser

Sample size
Target sample size: **54**

Randomization (investigator's opinion)
Randomized

Randomization description
According to formula of sample size, the patients are randomly allocated into three groups of receiving probiotics, combination of probiotics and vitamin D and control group of placebo treatment, by using a balanced block randomization technique. To achieve the goal, they were divided into 6 and 9 blocks. All subjects were randomly allocated by online randomization software to generate random-number sequences. {Sealed Envelope Ltd. 2015. Create a blocked randomization list. [Online] Available from: https://www.sealedenvelope.com/simple-randomiser/v1/lists [Accessed 15 Dec 2015]}. The coordinator and physician/s who evaluate inclusion /exclusion criteria and patient registration are completely blind.

Blinding (investigator's opinion)
Double blinded

Blinding description
Considering the study as a double-blind one, the placebo was presented to the control group is similar to probiotics in appearance, taste, and administration roles. The patients, recruiter and the physicians who evaluate the patients during the study are blind to drug or placebo .

Placebo
Used

Assignment
Parallel

Other design features
Monthly visits and study of questionnaires and scales for clinical symptoms . Paraclinical laboratory exams to evaluate inflammatory factors and intestinal permeability characters at the beginning of study and after 3 months of receiving drug or placebo .

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Tehran University of Medical Sciences

Street address
No 226, Central organization of Tehran University of Medical Sciences, Ghods Street, Keshavarz Blvd

City
Tehran

Province
Tehran

Postal code
1417653761

Approval date
2022-04-20, 1401/01/31

Ethics committee reference number
IR.TUMS.MEDICINE.REC.1401..803

Health conditions studied

1

Description of health condition studied
Migraine headache

ICD-10 code
G43.019

ICD-10 code description
Migraine without aura, intractable, without status migrainosus

Primary outcomes

1

Description

Evaluation of multi-specious probiotics on headache intensity

Timepoint

At the beginning of the study followed by monthly evaluation in a three months interventional period and follow up

Method of measurement

Questionnaire of Visual analogue scale (VAS) for more than 10 years and Visual Pain Scale less than 10 years

2

Description

Evaluation of multi-specious probiotics on headache frequency

Timepoint

At the beginning of the study followed by monthly evaluation in a three months interventional period and follow up

Method of measurement

Questionnaire of frequency of each attack in a month

3

Description

Evaluation of multi-specious probiotics on quality of life

Timepoint

At the beginning of the study followed by monthly evaluation in a three months interventional period and follow up

Method of measurement

PEDMIDAS Questionnaire

Secondary outcomes

1

Description

Evaluation of multi-specious probiotics on inflammatory factors in blood including of PCAP,CGRP

Timepoint

At the beginning and end of the study

Method of measurement

Laboratory Evaluation (kit)

2

Description

Evaluation of multi-specious probiotics on intestinal permeability characters With LPS

Timepoint

At the beginning and end of the study

Method of measurement

Laboratory Evaluation (kit)

3

Description

Drug adverse effect

Timepoint

Any time during the study

Method of measurement

Ask from participants and parents

Intervention groups

1

Description

The 1st Intervention group: The children who suffers from common migraine headache, are going to be treated by a sachet/ day of probiotics made by Farabiotic company for three months. Clinical aspects, examination, headache severity and quality of life are measured at the beginning of study and then monthly. After that, children are followed for 3 months without any medication. Blood samples to evaluate the inflammatory factors as well as intestinal permeability characters are drawn at the beginning and end of the study.

Category

Treatment - Drugs

2

Description

The 2nd Intervention group: The children who suffers from common migraine headache, are going to be treated by a sachet/ day as a combination of probiotics and vitamin D, made by Farabiotic company for three months. Clinical aspects, examination, headache severity and quality of life are measured at the beginning of study and then monthly. After that, children are followed for 3 months without any medication. Blood samples to evaluate the inflammatory factors as well as intestinal permeability characters are drawn at the beginning and end of the study.

Category

Treatment - Drugs

3

Description

Control group: The children who suffers from common migraine headache, are going to be treated by a sachet/ day of placebo made by Farabiotic company for three months. Clinical aspects, examination, headache severity and quality of life are measured at the beginning of study and then monthly. After that, children are followed for 3 months without any medication. Blood samples to evaluate the inflammatory factors as well as intestinal permeability characters are drawn at the beginning and end of the study.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Children's Medical Center Hospital

Full name of responsible person

Mahmoud Reza Ashrafi

Street address

Children's Medical Center Hospital, No 62, Gharib

Street, end of keshavarz Blvd
City
Tehran
Province
Tehran
Postal code
1419733151
Phone
+98 21 6612 9252
Fax
+98 21 6612 9252
Email
ashrafim@tums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Akbar Fotohee
Street address
Sixth floor, Central bulding of Tehran University of Medical Sciences
City
Tehran
Province
Tehran
Postal code
1417613151
Phone
+98 21 8163 3698
Email
vcr@tums.ac.ir
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
55
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

2

Sponsor
Name of organization / entity
Farabiotic Company
Full name of responsible person
Mohammad Mohammadi
Street address
Tehran, at the end of North Kargar Street, next to the University of Tehran dormitory, Center for the Development of Pharmaceutical Technology Units, No. 1462
City
Tehran
Province
Tehran
Postal code
1439955991
Phone
+98 21 8098 3588
Email
info@farabiotic.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Farabiotic Company
Proportion provided by this source
45
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
Industry

Person responsible for general inquiries

Contact
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Bita Heirati Asbagh
Position
Pediatric Neurology Fellow
Latest degree
Specialist
Other areas of specialty/work
Pediatrics
Street address
Children's Medical Center Hospital, No 62, Gharib Street, end of keshavarz Blvd
City
Tehran
Province
Tehran
Postal code
1419733151
Phone
+98 21 6692 9234
Fax
+98 21 6612 9252
Email
Heirati.bita@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Tehran University of Medical Sciences

Full name of responsible person
Mahmoud Reza Ashrafi

Position
Professor

Latest degree
Subspecialist

Other areas of specialty/work
Neurology

Street address
Children's Medical Center Hospital, No 62, Gharib Street, End of Keshavarz Blvd

City
Tehran

Province
Tehran

Postal code
1419733151

Phone
+98 21 6612 9252

Fax
+98 21 6612 9252

Email
ashrafim@tums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Tehran University of Medical Sciences

Full name of responsible person
Zahra Rezaei

Position
Pediatric Neurologist

Latest degree
Subspecialist

Other areas of specialty/work
Neurology

Street address
Children's Medical Center Hospital, No 62, Gharib Street, End of Keshavarz Blvd

City
Tehran

Province
Tehran

Postal code
1419733151

Phone
+98 21 6612 9252

Email
zahra.rezaii84@gmail.com

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
Undecided - It is not yet known if there will be 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
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

Title and more details about the data/document
All data would be available as long as the deidentification process is completed.

When the data will become available and for how long
Six months after data publication, it would be available with no limitation.

To whom data/document is available
Researchers of governmental or private research centers, researchers of University research centers, Knowledge-based companies,

Under which criteria data/document could be used
Data/ document is available for other research or academic centers to run a relevant study.

From where data/document is obtainable
All documents could be used in other research and academic institutes providing a comprehensive reference mentioned.

What processes are involved for a request to access data/document
Requesting by an email providing the data/document's application/s

Comments