Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Effect of the addition of pectin, inulin and resistant starch on the physico-chemical, rheology and organoleptic properties of prebiotic yogurt

Protocol summary

Summary

Objectives: Prebiotic products have great health benefits for the man. Yogurt is a food widely consumed in a variety of societies. The aim of the present study is to produce a type of prebiotic yogurt which not only exerts the expected health benefits for the man, but also has preference to the conventional type, regarding physicochemical, sensory and rheological characteristics. Then the product will be assessed for the mentioned features. Design: first 9 types of prebiotic yogurts using different dosages of the prebiotic substances and a control type will be prepared. In this study, to attain prebiotic characteristics in the products, 0.2%, 0.6% and 1% pectin, 1%, 3% and 5% inulin and 1%, 1.5% and 3.3% resistant starch will be used. One control sample (containing no prebiotic substance) will be produced as well. Chemical tests and viscometer will be used to assess physicochemical and rheological characteristics of the products respectively. Sensory evaluation of the products will be performed by 8 panelists which will be recruited randomly from among those volunteering to participate in the study. The participants should be devoid of any kinds of diseases (especially a cold) and should not smoke. A written consent will be obtained from all the subjects prior to the intervention. Conduct and Interventions: for sensory evaluation of the 10 types of yogurt produced (9 prebiotic yogurts with different dosages of pectin, inulin and resistant starch, and a control type) 100 grams of the sample will be given to the subjects who will be unaware of the type of yogurt they consume each time. After eating each sample, the relevant questionnaire designed on the basis of Hedonic system, will be completed by the participant. Different types of the yogurt will be assessed on different days. Each of the samples will be consumed only once by each participant (all in all 10 times of intaking the yogurts prepared). Data will be analyzed using SPSS ver.16.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201105315554N2**
Registration date: **2011-06-10, 1390/03/20**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2011-06-10, 1390/03/20

Registrant information

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Name of organization / entity
Tabriz University of Medical Scienses
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Iran (Islamic Republic of)
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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tabriz University of Medical Sciences

Expected recruitment start date

2011-07-21, 1390/04/30

Expected recruitment end date

2012-03-18, 1390/12/28

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Effect of the addition of pectin, inulin and resistant starch on the physico-chemical, rheology and organoleptic properties of prebiotic yogurt

Public title
Physico-chemical, rheological and organoleptic properties of prebiotic yogurt prepared with pectin, inulin and resistant starch in comparison to the conventional yogurt
Purpose
Prevention
Inclusion/Exclusion criteria
inclusion criteria: not having any diseases (including a cold), not smoking; exclusion criteria: having any diseases (including a cold), smoking
Age
From **20 years** old to **40 years** old
Gender
Both

Phase
2-3
Groups that have been masked
No information
Sample size
Target sample size: **8**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Single 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 Tabriz University of Medical Sciences
Street address
Golbad Ave
City
Tabriz
Postal code
Approval date
2011-04-17, 1390/01/28
Ethics committee reference number
908

Health conditions studied

1

Description of health condition studied
Healthy subjects
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Sensory evaluation of the two kinds of yogurt and comparing them
Timepoint
Exactly after the consumption of 100 grams of each kind of yogurt
Method of measurement
Hedonic system (questionnaire)

Secondary outcomes

empty

Intervention groups

1

Description
100 grams of prebiotic yogurt prepared with pectin, inulin and resistant starch
Category
Prevention

2

Description
100 grams of conventional yogurt available in the market
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Tabriz University of Medical Sciences
Full name of responsible person
Dr. Aziz Homayouni Rad
Street address
City
Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice chancellor for research, Tabriz University of Medical Sciences
Full name of responsible person
Dr. Mohammad Reza Rashidi
Street address
Golbad street
City
Tabriz
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, Tabriz 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

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Person responsible for updating data

Contact

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