Clinical Trial Protocol
Iranian Registry of Clinical Trials

26 Jun 2026

Comparative bioequivalence study of the miglustat 100-mg Capsules manufactured by Modava Pharmaceutical Company

Protocol summary

Study aim
Examining the equivalency of domestically produced tablet formulations with brand samples

Design
Cross-over unblinded randomization

Settings and conduct
The number of 24 healthy volunteers in the age range of 18-60 years and the weight range of 18 < BMI < 30, male, who are randomly and voluntarily selected through public notification. 1 tablet is taken fasting and blood is taken at 14 time points. A week later, the process is repeated for the external medicine

Participants/Inclusion and exclusion criteria
The weight range of participating candidates should be between 60-100 kg All candidates must be non-smokers Candidates should be healthy in terms of physical examination, ECG and the following laboratory tests: Hemoglobin, Hematocrit, Red and White Blood Count, MCV (Mean Body Volume), MCH (Mean Body Hemoglobin), Routine Urinalysis, Total Cholesterol, Triglyceride, Total Proteins, albumin, uric acid, total bilirubin, alkaline phosphatase, gamma glutamyl transpeptidase (γ-GT), aspartate aminotransferase (AST), alanine aminotransferase (ALT), urea, creatinine and fasting blood glucose Volunteers who have agreed to an informed consent form

Intervention groups
After taking a pill for internal production, 3 milliliters of blood will be collected from the volunteer in 14 time intervals for 24 hours. A week later, the process is repeated for a brand sample pill. The drug concentration is measured in plasma

Main outcome variables
Studying the Drug pharmacokinetic parameters

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20130313012810N8**
Registration date: **2023-01-17, 1401/10/27**
Registration timing: **prospective**

Last update: **2023-01-17, 1401/10/27**
Update count: **0**

Registration date
2023-01-17, 1401/10/27

Registrant information

Name
Hamed Hamishehkar

Name of organization / entity
Drug Applied Research Center, Tabriz University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 41 1336 3311

Email address
hamishehkar.hamed@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-02-04, 1401/11/15

Expected recruitment end date
2023-02-11, 1401/11/22

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparative bioequivalence study of the miglustat 100-mg Capsules manufactured by Modava Pharmaceutical

Company

Public title
Comparative bioequivalence study of the miglustat 100-mg Capsules manufactured by Modava Pharmaceutical Company

Purpose
Other

Inclusion/Exclusion criteria

Inclusion criteria:
The weight range of participating candidates should be between 60-100 kg All candidates must be non-smokers Candidates should be healthy in terms of physical examination, ECG and the following laboratory tests: Hemoglobin, Hematocrit, Red and White Blood Count, MCV (Mean Body Volume), MCH (Mean Body Hemoglobin), Routine Urinalysis, Total Cholesterol, Triglyceride, Total Proteins, albumin, uric acid, total bilirubin, alkaline phosphatase, gamma glutamyl transpeptidase (γ-GT), aspartate aminotransferase (AST), alanine aminotransferase (ALT), urea, creatinine and fasting blood glucose Volunteers who have agreed to an informed consent form All candidates should not consume caffeine-containing drinks and chocolate during two days before the prescription, and this restriction must be followed until the last blood draw

Exclusion criteria:
History of allergic or adverse reaction to miglustat or any similar product Volunteers with blood pressure less than 60/90 mm Hg or higher than 90/140 mm Hg. smokers Treatment with enzyme-modifying drugs or taking any drug within 2 weeks before receiving the drug

Age
From **18 years** old to **60 years** old

Gender
Male

Phase
Bioequivalence

Groups that have been masked
No information

Sample size
Target sample size: **24**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Crossover

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
Daneshghah St. Drug Applied Research Center

City
Tabriz

Province
East Azarbaijan

Postal code
5165665811

Approval date
2023-01-09, 1401/10/19

Ethics committee reference number
IR.TBZMED.REC.1401.926

Health conditions studied

1

Description of health condition studied
-

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Plasma concentration of the drug

Timepoint
14 sampling time till 24 h

Method of measurement
Liquid Chromatography with tandem mass spectrometry (LC-MS-MS)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Intervention group: Intervention group: This study examines the bioequivalence of miglustat tablets produced by a domestic company with a foreign brand sample. We have only one intervention group and there is no control group. The intervention group, which includes healthy, fasting male volunteers, will receive a single dose, a 100 mg tablet manufactured by the pharmaceutical company Modava and Actelion brand, in two 24-hour periods with an interval of one week, on the day of the study. And in 14 different time periods up to 24 hours after taking the medicine, blood samples will be taken from the volunteers in the amount of 3 ml each time, that is, a total of 42 ml within 24

hours. The training that will be given to the volunteers includes avoiding the consumption of drinks containing alcohol and xanthine and other interfering drugs in the prescription drug from 48 hours before the start of the study until the end of the study.

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Drug Applied Research Center, Tabriz University of Medical Sciences

Full name of responsible person
Hamed Hamishehkar

Street address
Drug Applied Research Center, Tabriz University of Medical Sciences

City
Tabriz

Province
East Azarbaijan

Postal code
51656-65811

Phone
+98 41 3336 3311

Email
hamishehkar.hamed@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Modava Pharmaceutical Company

Full name of responsible person
Asghar Heydari

Street address
5th floor, Shafayab Building, No. 275, Beheshti St.

City
Tehran

Province
East Azarbaijan

Postal code
1514617714

Phone
+98 21 8817 5119

Email
info@modavaco.com

Grant name

Grant code / Reference number

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

Title of funding source
Modava Pharmaceutical Company

Proportion provided by this source
100

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
Tabriz University of Medical Sciences

Full name of responsible person
Hamed Hamishehkar

Position
professor

Latest degree
Ph.D.

Other areas of specialty/work
Medical Pharmacy

Street address
Drug Applied Research Center, Tabriz University of Medical Sciences

City
Tabriz

Province
East Azarbaijan

Postal code
51656-65811

Phone
+98 41 3336 3181

Fax
+98 41 3336 3311

Email
hamishehkar.hamed@gmail.com

Web page address
http://darc.tbzmed.ac.ir/

Person responsible for scientific inquiries

Contact

Name of organization / entity
Tabriz University of Medical Sciences

Full name of responsible person
Hamed Hamishehkar

Position
professor

Latest degree
Ph.D.

Other areas of specialty/work
Medical Pharmacy

Street address
Drug Applied Research Center, Tabriz University of Medical Sciences

City
Tabriz

Province
East Azarbaijan

Postal code
51656-65811
Phone
+98 41 3336 3181
Fax
+98 41 3336 3311
Email
hamishehkar.hamed@gmail.com
Web page address
http://darc.tbzmed.ac.ir/

Person responsible for updating data

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Hamed Hamishehkar
Position
professor
Latest degree
Ph.D.
Other areas of specialty/work
Medical Pharmacy
Street address
Drug Applied Research Center, Tabriz University of Medical Sciences
City
Tabriz
Province
East Azarbaijan
Postal code
51656-65811
Phone
+98 41 3336 3181
Fax
+98 41 3336 3311
Email
hamishehkar.hamed@gmail.com
Web page address
http://darc.tbzmed.ac.ir/

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available