

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Sep 2026

The effect of Bumethanide treatment on seizure controlling in patients with drug resistance temporal lobe epilepsies candidate for surgery

Protocol summary

Summary

Temporal lobe epilepsy (TLE) is the most common form of human partial epilepsy and is poorly controlled by the pro-GABAergic or anti Na-channel drugs that form the basis of current pharmacotherapy. Instead, the preferred therapy for patients with pharmacoresistant epilepsies associated with hippocampal sclerosis is to define the site of the epileptogenic focus, and to remove this region surgically. We want to test Bumetanide effect as a substitute treatment for surgery in controlling temporal lobe epilepsy. Our study population will be 5 patients suffering from drug resistant temporal lobe epilepsy who are candidate for surgery. People who have contraindication for Bumetanide will be excluded from this study. Patients will receive this medicine orally for 3 months. Then we will test the effect of Bumetanide in decreasing seizures as well as its effects on interictal events.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201012115368N1**

Registration date: **2011-02-05, 1389/11/16**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2011-02-05, 1389/11/16

Registrant information

Name

Mahmoudreza Hadjighassem

Name of organization / entity

Brain and Spinal Cord Injury research center, School of advanced medical technologies, Tehran University

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Recruitment status

Recruitment complete

Funding source

Cellular and Molecular Research Center, Vice chancellor for research, Tehran University of Medical Sciences

Expected recruitment start date

2011-04-21, 1390/02/01

Expected recruitment end date

2011-07-23, 1390/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of Bumethanide treatment on seizure controlling in patients with drug resistance temporal lobe epilepsies candidate for surgery

Public title

The effect of Bumethanide treatment on seizure controlling in patients with drug resistance temporal lobe epilepsies candidate for surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion: 1) Suffering from drug resistance temporal lobe epilepsy 2) Candidate for temporal lobectomy 3) Giving informed consent. Exclusion: Contraindication for Bumethanide

Age

From **20 years** old to **50 years** old

Gender

Both

Phase

1-2

Groups that have been masked

No information

Sample size

Target sample size: 5

Randomization (investigator's opinion)

N/A

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

Not blinded

Blinding description**Placebo**

Not used

Assignment

Single

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**Cellular and Molecular Research Center of Tehran
University of Medical Sciences**Street address**

Hemmat highway

City

Tehran

Postal code**Approval date**

2011-01-02, 1389/10/12

Ethics committee reference number

4333/م ت

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

Temporal Lobe Epilepsy

ICD-10 code

G40.8

ICD-10 code description

other epilepsy

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

seizure occurrence

Timepoint

1 month before and 1 month after intervention

Method of measurement

EEG

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

dose reduction of anti-epileptic drugs

Timepoint

3 months before and 3 months after intervention

Method of measurement

dosage

Intervention groups**1****Description**

Bumetanide (1mg/day) orally for 3 months

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Seizure Center, Khatamolanbia Hospital

Full name of responsible person**Street address****City**

Tehran

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**Cellular and Molecular Research Center of Tehran
University of Medical Sciences**Full name of responsible person**

Dr.Hadjighassem

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Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding sourceCellular and Molecular Research Center of Tehran
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*

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City**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*