

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

Clinical outcomes of endovascular embolization for the treatment of Spinal ArterioVenous Malformations (AVMs)

Protocol summary

Summary

The purpose of this study is clinical outcome evaluation of endovascular embolization for the treatment of spinal AVMs. In this clinical trial, patients will be recruited from radiologic center, Imam Khomeini Hospital, Tehran University of Medical Sciences (TUMS), Tehran, Iran. After definitive diagnosis of spinal AVMs based on spinal-MRI/angiography, functional status and tumor size will be measured by use of the Aminoff Logue Disability Scale and spinal MRI, respectively. Then endovascular embolization will be performed. After 6 months, clinical outcome will be evaluated with Logue Disability Scale and spinal MRI again. Primary outcome measure is clinical outcome of endovascular embolization for the treatment of spinal AVMs. Secondary outcome measure is change in tumor size after endovascular embolization.

General information

Acronym

-

IRCT registration information

IRCT registration number: **IRCT2014071218457N1**

Registration date: **2014-12-02, 1393/09/11**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2014-12-02, 1393/09/11

Registrant information

Name

Hossein Ghanaati

Name of organization / entity

Advanced Diagnostic and Interventional Radiology
Research Center (ADIR), Tehran University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tehran University of Medical Sciences (TUMS)

Expected recruitment start date

2014-04-21, 1393/02/01

Expected recruitment end date

2016-04-20, 1395/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Clinical outcomes of endovascular embolization for the treatment of Spinal ArterioVenous Malformations (AVMs)

Public title

Clinical outcomes of endovascular embolization for the treatment of Spinal ArterioVenous Malformations (AVMs)

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patients with spinal AVMs diagnosis

Exclusion criteria: Patients under 10 years; Previous surgery for the treatment of AVMs; Allergic reaction to contrast material

Age

From **10 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 36

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

Vice Chancellor for Research, Tehran University of Medical Sciences

Street address

Ghods Avenue, Keshavarz Blvd.

City

Tehran

Postal code

1419733141

Approval date

2013-05-22, 1392/03/01

Ethics committee reference number

92-03-98-24546-108289

Health conditions studied

1

Description of health condition studied

Spinal Arterio-Venous Malformation

ICD-10 code

C72.0

ICD-10 code description

Spinal cord

Primary outcomes

1

Description

Walking, Muscle force, Urinary incontinence

Timepoint

After 6 months

Method of measurement

Aminoff Logue scale

Secondary outcomes

1

Description

Tumor size

Timepoint

6 months

Method of measurement

Spinal MRI

Intervention groups

1

Description

Endovascular embolization; after catheterization of the tumor feeder artery, Onyx will be injected throughout the catheter.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Medical Imaging Center, Imam Khomeini Hospital, Tehran University of Medical Sciences (TUMS)

Full name of responsible person

Dr Hossein Ghanaati

Street address

Keshavarz Blvd.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Imam Khomeini Hospital, Tehran University of Medical Sciences (TUMS)

Full name of responsible person

Dr Masoud Younesian

Street address

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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

Vice chancellor for research, Imam Khomeini Hospital, Tehran University of Medical Sciences (TUMS)

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****Contact****Name of organization / entity**Medical Imaging Center, Imam Khomeini Hospital,
Tehran University of Medical Sciences (TUMS)**Full name of responsible person**

Dr Hossein Ghanaati

Position

Professor, Interventional Radiologist

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General Physician

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Tehran University of Medical Sciences (TUMS)**Full name of responsible person**

Dr Hossein Ghanaati

Position

Professor, Interventional Radiologist

Other areas of specialty/work**Street address****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*