

Clinical Trial Protocol

Iranian Registry of Clinical Trials

14 Jul 2026

Comparison of Doxycycline and Povidon Iodine for in treatment of pleural effusion in patients who candidate for pleurodesis

Protocol summary

Summary

The aim of the study We aimed to compare the efficacy of doxycycline and povidon iodine in treating of pleural effusion and determines appropriate alternative. Designed to study In a blinded clinical trial, 72 patients who are candidate for pleurodesis, including recurrence or malignant cases, enroll and randomly divide into two groups. The main inclusion and exclusion criteria: Candidates for pleurodesis, recurrent or malignant cases who have expansion of lungs after chest tube insertion which confirm by anterior-posterior chest radiography. Interventions In the case group 20 ml povidon Iodine 10% diluted with 50 ml normal saline 0.9% and 10 ml lidocaine 2% and injected to pleural space via chest tube. In control cases doxycycline 7 mg per kilogram diluted with 50 ml normal saline 0.9% and 10 ml lidocaine 2% and injected to pleural space via chest tube. In both groups the chest tube clamped and after one hour, the clamp opened and chest tube connected to bottle which connected to suction with minus 10 centimeters of water up to 48 to 72 hours for helping to lungs expansion. Time of intervention: Time of intervention is after insertion of chest tube and confirming of lungs expansion by chest radiography. Outcome of study: Main outcomes are pain and infection due to pleurodesis.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015052918168N3**
Registration date: **2016-04-08, 1395/01/20**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-04-08, 1395/01/20

Registrant information

Name

Hamid Reza Hemmati

Name of organization / entity

Semnan University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research and Technology, Semnan University of Medical Sciences

Expected recruitment start date

2015-10-23, 1394/08/01

Expected recruitment end date

2016-10-21, 1395/07/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Doxycycline and Povidon Iodine for in treatment of pleural effusion in patients who candidate for pleurodesis

Public title

Use of Doxycycline and Povidon Iodine for in treatment of pleural effusion

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Candidates for pleurodesis, recurrent or malignant cases . Exclusion criteria: none

Age
No age limit

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **72**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
A random number table used for randomization.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic Committee of Semnan University of Medical
Sicence

Street address

Basidj Boulevard

City

Semnan

Postal code

3519747167

Approval date

2015-08-20, 1394/05/29

Ethics committee reference number

IR.SEMUMS.REC.1394.91

Health conditions studied

1

Description of health condition studied

Pleural effusion

ICD-10 code

J90

ICD-10 code description

Pleural effusion, not elsewhere classified

Primary outcomes

1

Description

Pain

Timepoint

Daily after intervention

Method of measurement

Numeric Pain Rating Scale

Secondary outcomes

1

Description

Empyema

Timepoint

In the 7, 30, 60 and 90 day after intervention

Method of measurement

Examination and assessment

Intervention groups

1

Description

In the case group 20 ml povidon iodine 10% diluted with 50 ml normal saline 0.9% and 10 ml lidocaine 2% and injected to pleural space via chest tube and clamped for one hour.

Category

Treatment - Drugs

2

Description

In control cases doxycycline 7 mg per kilogram diluted with 50 ml normal saline 0.9% and 10 ml lidocaine 2% and injected to pleural space via chest tube and clamped for one hour.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Kowsar Hospital

Full name of responsible person

Armin Hajizadeh

Street address

Amin Avenue, Al-Ghadir square, Basidj Boulevard

City

Semnan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research of Semnan University of Medical Sciences

Full name of responsible person

Mohammad Reza Asgari

Street address

Basidj Boulevard

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Semnan

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 of Semnan 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

Contact**Name of organization / entity**

Semnan University of Medical Sciences

Full name of responsible person

Armin Hajizadeh

Position

Medical Student (intern)

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Position

Thorax Surgeon/ Assistant professor

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Research expert

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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