Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient

Protocol summary

Study aim

The effect of eucalyptus fumigation on ventilator-induced pneumonia is determined in patients undergoing mechanical ventilation.

Design

After approving the plan and obtaining informed consent from the guardian of the patients, the research is done by the researcher and 3 nurses who have received the necessary training. Seventy patients admitted to the intensive care unit of Vali-e-Asr Educational Hospital in Ark were randomly selected and randomly divided into two groups of intervention (35 people) and control (35 people).

Settings and conduct

Location (Environment) Research: Special care wards of Vali Asr Educational Hospital in Arak

Participants/Inclusion and exclusion criteria

Inclusion criteria :Obtaining consent from the treating physician, the presence of a chip tube through the mouth, age 16 to 65 years, artificial ventilation for at least 72 hours, the absence of pulmonary infection based on the clinical score of modified pulmonary infection (MCPIS), insensitivity to plant compounds, lack of Presence of sepsis, pulmonary thromboembolism, atelectasis, inflammatory diseases of the gastrointestinal tract, bile ducts, and severe liver disease at the discretion of a specialist physician) Criteria for leaving the study: Transfer of the patient from the ICU or his death, dissatisfaction of the patient's companions, chest surgery, observation of complications from eucalyptus incense such as urticarial , pruritus and skin rash, sudden changes in The patient's clinical or respiratory status, worsening of the patient's general condition, or decreased level of consciousness due to possible infection.

Intervention groups

Patients are hospitalized in intensive care units of Vali-e-Asr Educational Hospital in Arak.

Main outcome variables

The intensity of ventilator-associated pneumonia patients receiving incense Eucalyptus and control how much?

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161014030294N3**
Registration date: **2020-08-23, 1399/06/02**
Registration timing: **retrospective**

Last update: **2020-08-23, 1399/06/02**
Update count: **0**

Registration date

2020-08-23, 1399/06/02

Registrant information

Name

Mansoreh Karimikia

Name of organization / entity

Arak University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 86 3367 4702

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-25, 1399/03/05

Expected recruitment end date

2020-07-25, 1399/05/04

Actual recruitment start date

empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient

Public title
Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Obtaining the consent of the treating physician, presence of endotracheal tube, age 16 to 65 years, mechanical ventilation for at least 72 hours, no lung infection based on the clinical score of modified lung infection (MCPIS), no sensitivity to plant compounds, no Presence of sepsis, pulmonary thromboembolism, atelectasis, inflammatory diseases of the gastrointestinal tract, bile ducts and severe liver disease at the discretion of a specialist (based on physical examination and history taken from the patient).
Exclusion criteria:
Transfer of the patient from the ICU (for any reason) or death before the completion of the study, unwillingness of the patient's companions to continue the study, chest surgery, observation of complications due to eucalyptus fumigation such as urticaria, pruritus and skin rash, sudden changes in The patient's clinical condition or respiratory pattern, worsening of the patient's general condition, or decreased level of consciousness due to possible infection.
Age
From **16 years** old to **65 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant
- Care provider

Sample size
Target sample size: **70**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomly replace the block Individual List of replacement blocks
Blinding (investigator's opinion)
Double blinded
Blinding description
Patients and 3 nurses
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Arak University of Medical Sciences
Street address
A'lam-Al-Hoda Street, Shahid Shiroodi Street, Arak, Markazi Province, Iran
City
Arak
Province
Markazi
Postal code
Approval date
2020-05-02, 1399/02/13
Ethics committee reference number
IR.ARAKMU.REC.1399.041

Health conditions studied

1

Description of health condition studied
ventilator-associated pneumonia
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Type of microbial contamination of patients' lung secretions
Timepoint
Samples of endotracheal secretions for microbiological studies 72 hours, 7 days and 15 days after inhalation and when the patient is extubated
Method of measurement
Microbiological test

Secondary outcomes

1

Description
Incidence of possible complications
Timepoint
From the beginning of the intervention continuously
Method of measurement
observation

Intervention groups

1

Description
Intervention group: Nebulizing eucalyptus. In the patients of the intervention group, 4 drops of ready eucalyptus solution (Darou Gostar Barij Essence co) is diluted in 6 ml of 0.9% normal saline and used by the standard nebulizer system for 15 minutes every 8 hours until the endotracheal tube is removed.
Category
Prevention

2

Description
Control group:Patients in the control group are without the use of nebulizing
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Vali Asr Educational Hospital of Arak
Full name of responsible person
Behnam Mahmodie
Street address
Hazrat Valiasr Educational and Medical Center, Hazrat Valiasr Square, Arak
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Arak University of Medical Sciences
Full name of responsible person
Alireza Kamali
Street address
A'lam-Al-Hoda Street, Shahid Shiroodi Street, Arak, Markazi Province, Iran
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Email
research@arakmu.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Arak University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Arak University of Medical Sciences
Full name of responsible person
Mansoreh Karimikia
Position
Lecturer
Latest degree
Master
Other areas of specialty/work
Nursery
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Person responsible for scientific inquiries

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient
When the data will become available and for how long
Access period starts 6 months after the results are published
To whom data/document is available
Researchers working in academic and scientific institutions
Under which criteria data/document could be used
Data and data analysis and results will be sent via email after the article is published.
From where data/document is obtainable
Responsible person: Mansoreh Karimi Kia Address : Arak University of Medical Sciences, School of Paramedical Sciences Contact number 09181600717 Email: karimikia93@gmail.com
What processes are involved for a request to access data/document
The request is made by phone or email and the results are sent by email within a week.
Comments