Clinical Trial Protocol
Iranian Registry of Clinical Trials

14 Jul 2026

The effect of hot and cold compression on urinary retention after surgery in elderly patients

Protocol summary

Study aim

The effects of cold and hot compresses in the supra-pubic area on urinary retention in elderly patients after surgery

Design

In this study, fifty two elderly patients referred to Imam Khomeini and Ghayem hospitals in Jiroft who had urinary retention in their urine after surgery did not suffer from pain and discomfort in the suprapubic area, and in a clinical examination Their bladder is sensitive, swollen, and painful and have conditions to enter the study. They are selected. Participants were randomly divided into two intervention groups including 1- hot water compressor group and 2 - cold water compressor group. And compressed warm and cold water for 25 minutes in their suprapubic area, and the time taken to remove urinary retention during this period is measured and recorded using a standard stopwatch. Also, the severity of pain in these patients is measured immediately before the intervention and 10 minutes after the end of the intervention with the visual scale.

Settings and conduct

This study was performed on elderly patients referring to Imam Khomeini and Ghaem hospitals of Jiroft. Patients do not urinate after surgery and they report pain and discomfort in the suprapubic area. They had sensitive, swollen and painful in their bladder examination.

Participants/Inclusion and exclusion criteria

Patient entry requirements in this study include age over 60 years old for both sexes; patients with post-operative urinary retention; willingness to participate in the study and conditions for the exclusion of diabetes; the delivery of urinary catheter during the recent surgery

Intervention groups

Hot compress group: In this group, a bag containing 1200 cc water at a temperature of 52 ° C wrapped in a thin wrapper for 25 minutes in the suprapubic area of the patient. Cold compress group: In this group, a bag containing 1200 cc of frozen water is placed in a thin towel wrapped in the suprapubic area of the patient for 25 minutes.

Main outcome variables

The desired outcome is the removal of urinary retention in patients that is measured and recorded using standard gauges. Also, the score of urinary retention rate in both intervention groups was measured and recorded at two intervals before intervention and ten minutes after the end of the intervention based on the visual analog scale.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150519022320N8**
Registration date: **2017-12-29, 1396/10/08**
Registration timing: **registered_while_recruiting**

Last update: **2017-12-29, 1396/10/08**
Update count: **0**

Registration date

2017-12-29, 1396/10/08

Registrant information

Name

Tayebeh Mirzaei

Name of organization / entity

Rafsanjan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

University of Rafsanjan

Expected recruitment start date
2017-09-14, 1396/06/23
Expected recruitment end date
2018-01-13, 1396/10/23
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
The effect of hot and cold compression on urinary retention after surgery in elderly patients

Public title
The effect of hot and cold compression on urinary retention after surgery in elderly patients
Purpose
Supportive
Inclusion/Exclusion criteria
Inclusion criteria:
Age over 60 years old Certainty of urinary retention through a patient's clinical examination, including sensitive and painful swollen bladder and patient's complaint of urinary retention Patients who do not urinate from the time of surgery to the beginning of the plan No known urinary problems
Exclusion criteria:
Unwillingnesse to participate in the study Diabetes Putting urinary catheter during recent surgery
Age
From **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **52**
Randomization (investigator's opinion)
Randomized
Randomization description
In this study, after diagnosis of urinary retention, and explaining the goals of the study and getting informed consent from them, the specimens were randomly assigned to either warm or cold compressed groups using the milk or line method. In the case of the arrival of the first milk, the first sample is compressed in the compressive group and, on the contrary, in the cold compressed group. The next sample is placed in the opposite group without using the milk or line method. And other samples are selected in the same way
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Rafsanjan University of Medical Sciences
Street address
School of Nursing and Midwifery, Parastar Avenue, Rafsanjan
City
Rafsanjan
Province
Kerman
Postal code
7718796755
Approval date
2017-07-31, 1396/05/09
Ethics committee reference number
IR.RUMS.RES.1396.83I

Health conditions studied

1

Description of health condition studied
Urinary retention after surgery
ICD-10 code
ICD-10 code description

2

Description of health condition studied
Urinary retention after surgery
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Retention of urine
Timepoint
The severity of urinary retention in patients before intervention and 10 minutes after the end of the intervention, the time of removal of urinary retention for 25 minutes from the time of the commision
Method of measurement
Patient comments, visual scale for grading urine retention rate, removal of urinary retention by standard stopwatch

Secondary outcomes

1

Description
Pain due to urinary retention
Timepoint
Before intervention; 10 minutes after intervention
Method of measurement
Patient report; Visually assigned scale (VAS)

Intervention groups

1

Description
Control group: The cold compress group is a bag containing 1200 cc of completely frozen water for 25 minutes in the suprapubic area of the patient and the cases of removal of urinary retention during this period are measured by standard stopwatch. If not resolved Urinary retention is immediately given to the patient by the doctor's permission for urinary catheterisation. Also, the rate of urinary retention rate in these patients is measured and recorded before and after intervention 10 minutes after the end of the intervention.
Category
Treatment - Other

2

Description
Intervention group: Includes hot compressor group. A 200-cc warm-blooded bag containing 52 ºC for 25 minutes in a suprapubic area of the patient undergoes post-operative urinary retention. Urinary retention during this period is performed using a standard stopwatch And in case of non-removal of urinary retention, with the permission of the doctor, immediately the patient is provided with urinary catheter. In this intervention, the pain intensity of patients before and after intervention and 10 minutes after its completion are measured and visualized scale. will be recorded.
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Imam Khomeini Hospital
Full name of responsible person
Farkhondeh Roudbari
Street address
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2

Recruitment center
Name of recruitment center
Gaeem hospital
Full name of responsible person
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Rafsanjan University of Medical Sciences
Full name of responsible person
Dr. Ali Shamsizade
Street address
Vice Chancellor of Research, Rafsanjan University of Medical Sciences, Imam Ali Blvd.
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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
Rafsanjan 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

Rafsanjan University of Medical Sciences

Full name of responsible person

Dr. Tayyebe Mirzaei

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Nursery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No, I have no plans to publish it, because the data of this work will be provided with full satisfaction after ensuring that the intervention is harmless in the scheme.

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available