Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparison of the Effectiveness of Bladder Training and Pelvic Floor Muscle Exercises (Kegel Exercises) with Usual Care on Urinary Incontinence and Quality of Life in Men Candidates for Transurethral Resection of the Prostate (TURP)

Protocol summary

Study aim

To compare the effects of bladder training and Kegel exercises on urinary incontinence and quality of life in men undergoing transurethral resection of the prostate.

Design

This is an open label, randomized, three arm parallel clinical trial on 90 participants. Simple individual randomization by drawing numbered lots without replacement will allocate 30 participants to each group. Trial phase is not applicable.

Settings and conduct

The study will be conducted at the Urology Clinic of Shahid Beheshti Educational Hospital in Hamadan. After eligibility assessment and written informed consent, participants will be randomly allocated to the three groups. No blinding will be performed.

Participants/Inclusion and exclusion criteria

Men aged 40 to 80 years who are candidates for transurethral resection of the prostate, have at least primary school education, and are willing to participate will be included; those with previous pelvic surgery, cognitive impairment, prior bladder or Kegel training, or urinary incontinence due to diabetes or urinary tract infection will not be included.

Intervention groups

The bladder training group will receive usual care plus scheduled voiding, urgency control techniques, restriction of bladder irritant fluids, and urinary pattern recording. The Kegel group will receive usual care plus 40 pelvic floor muscle exercises daily. Both interventions will start one week before surgery and continue for eight weeks after surgery. The control group will receive usual care only.

Main outcome variables

Urinary incontinence severity; quality of life related to urinary symptoms.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20260915071067N1**
Registration date: **2026-09-16, 1405/06/25**
Registration timing: **prospective**

Last update: **2026-09-16, 1405/06/25**
Update count: **0**

Registration date

2026-09-16, 1405/06/25

Registrant information

Name
Seyed Ali Rasooli
Name of organization / entity
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Iran (Islamic Republic of)
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Recruitment status

recruiting

Funding source

Expected recruitment start date

2026-10-07, 1405/07/15

Expected recruitment end date

2027-04-04, 1406/01/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Comparison of the Effectiveness of Bladder Training and Pelvic Floor Muscle Exercises (Kegel Exercises) with Usual Care on Urinary Incontinence and Quality of Life in Men Candidates for Transurethral Resection of the Prostate (TURP)

Public title
Effect of Bladder Training and Kegel Exercises on Urinary Incontinence and Quality of Life After Transurethral Resection of the Prostate

Purpose
Supportive

Inclusion/Exclusion criteria

Inclusion criteria:
Men who are candidates for Transurethral Resection of the Prostate (TURP). Patients undergoing TURP surgery according to the urologist's decision. Age between 40 and 80 years. Having primary school education or higher. Willingness to participate in the study and signing the informed consent form. No history of previous pelvic surgery. No diagnosis of prostate cancer based on postoperative pathology results. No previous training in bladder training or Kegel exercises before entering the study. No cognitive impairment. No urinary incontinence caused by underlying diseases such as diabetes or urinary tract infections.

Exclusion criteria:
Diagnosis of prostate cancer based on pathology results History of previous pelvic surgery Previous training in bladder training or Kegel exercises Presence of cognitive impairment Presence of urinary incontinence caused by conditions such as diabetes or urinary tract infection

Age
From **40 years** old to **80 years** old

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **90**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomization in this study will be performed using simple randomization at the individual level. After selecting eligible participants and obtaining written informed consent, each participant will be assigned a number from 1 to 90. The assigned numbers will be placed in a bag, and participants will be randomly allocated without replacement into three groups of 30 participants: the bladder training group, the Kegel exercise group, and the control group. Stratified or cluster randomization will not be used in this study. The random sequence will be generated by a random drawing method. For allocation concealment, the assigned numbers will be kept in the bag until the final allocation, and each participant's group assignment will be determined only after confirmed enrollment in the study.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
This study is a randomized clinical trial with a parallel three-group design. After confirming eligibility criteria and obtaining informed consent, participants will be randomly allocated into three groups: bladder training group, Kegel exercise group, and control group. The interventions will start one week before Transurethral Resection of the Prostate (TURP) surgery and will continue for eight weeks after surgery. The primary outcomes, including urinary incontinence and quality of life related to urinary problems, will be assessed before the intervention and after completion of the intervention period.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Hamadan University of Medical Sciences

Street address
Central Office of Hamadan University of Medical Sciences, Shahid Fahmideh Boulevard, Pajouhesh Square, Hamadan

City
Hamadan

Province
Hamadan

Postal code
۶۵۱۷۸۳۸۷۳۶

Approval date
2026-09-12, 1405/06/21

Ethics committee reference number
IR.UMSHA.REC.1405.469

Health conditions studied

1

Description of health condition studied
Benign Prostatic Hyperplasia

ICD-10 code
N40

ICD-10 code description
Benign prostatic hyperplasia

Primary outcomes

1

Description
Urinary incontinence severity
Timepoint
Measurement of urinary incontinence severity before the intervention and two months after transurethral resection of the prostate
Method of measurement
International Consultation on Incontinence Questionnaire short form

2

Description
Quality of life related to urinary symptoms
Timepoint
Measurement of quality of life related to urinary symptoms before the intervention and two months after transurethral resection of the prostate
Method of measurement
Lower urinary tract symptoms quality of life questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: Participants in this group will receive bladder training in addition to usual care. Bladder training includes scheduled voiding, urgency control techniques, limitation of bladder irritant fluid intake, and recording urinary patterns. This intervention will start one week before transurethral resection of the prostate and will continue for eight weeks after surgery.
Category
Rehabilitation

2

Description
Intervention group 2: Participants in this group will receive pelvic floor muscle exercises (Kegel exercises) in addition to usual care. The intervention includes contraction and relaxation of pelvic floor muscles performed 40 times daily. Patients will receive instructions on correct performance of the exercises. The intervention will start one week before transurethral resection of the prostate and will continue for eight weeks after surgery.
Category
Rehabilitation

3

Description
Control group: Participants in this group will receive routine care and education before and after transurethral resection of the prostate. This group will not receive any specific training in bladder training or pelvic floor muscle exercises.
Category
N/A

Recruitment centers

1

Recruitment center
Name of recruitment center
Urology Clinic of Shahid Beheshti Educational Hospital, Hamadan
Full name of responsible person
Seyed Ali Rasooli
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Shahid Beheshti Specialized and Subspecialized Educational and Treatment Center, Eram Boulevard Beginning, Ghaem Square
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Full name of responsible person
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Grant name
Not applicable
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Hamedan 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
Hamedan University of Medical Sciences
Full name of responsible person
Seyed Ali Rasooli
Position
Faculty Member
Latest degree
Master
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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
Due to maintaining participants' confidentiality and adhering to research ethics principles, individual participant data will not be publicly shared.
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available
Title and more details about the data/document
Final study report including study methods, data analysis, and overall results after completion of the study and publication of findings.
When the data will become available and for how

long

After completion of the study and publication of the research findings.

To whom data/document is available

Researchers and eligible individuals whose requests for scientific use of the study documents are reviewed and approved.

Under which criteria data/document could be used

The documents may only be used for scientific and research purposes while maintaining confidentiality and research ethics principles.

From where data/document is obtainable

Requests should be submitted through correspondence with the principal investigator or Hamadan University of Medical Sciences.

What processes are involved for a request to access data/document

Requests will be reviewed, and access will be provided when possible after approval of the scientific purpose and compliance with ethical requirements.

Comments

No further information is available.