

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Comparing the squatting position versus traditional sitting position for ease of spinal needle placement; a randomized clinical trial

Protocol summary

Summary

Objectives: comparing squatting position versus traditional sitting position on ease of spinal needle insertion for induction of spinal anesthesia. Design: Randomized clinical trial. Setting: university hospital operating room. Participants including major eligibility criteria: 222 adults, ASA physical status I and II aged 18-75 who were scheduled for elective surgeries under spinal anesthesia. Major exclusion criteria: language barrier ; contraindications to neuroaxial block ; morbid obesity (BMI> 40) ; pregnancy ; lumbar surgical scar and obvious lumbar scoliosis. Interventions: patients were instructed about their position according to the allocation in which in squatting group the patient hug his/her knees and sit on the operating table versus traditional sitting positions in which patient sit on the side of the operating table and feet rest on a chair. The anesthesiologist who performs the block, count the number of needle bone contact(0-5) and ease of finding inter vertebral space as easy, difficult, impossible that was recorded in the questionnaire by resident of anesthesiology. Main outcome measures: The primary outcome was the number of needle-bone contacts and secondary outcome was ease of space identification/needle insertion. .

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201208215264N4**

Registration date: **2013-02-19, 1391/12/01**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-02-19, 1391/12/01

Registrant information

Name

Sussan Soltani Mohammadi

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

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Email address

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Recruitment status

Recruitment complete

Funding source

Vice chancellor research, Tehran university of medical sciences

Expected recruitment start date

2010-01-10, 1388/10/20

Expected recruitment end date

2012-01-03, 1390/10/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the squatting position versus traditional sitting position for ease of spinal needle placement; a randomized clinical trial

Public title

Comparing the squatting with sitting position for spinal anesthesia

Purpose

Other

Inclusion/Exclusion criteria

Major eligibility criteria: patients with ASA class I or II aged 18-75 who were scheduled for lower abdominal or

lower extremity surgeries under spinal anesthesia Major exclusion criteria: language barrier ; contraindications to neuroaxial block ; morbid obesity (BMI> 40) ; pregnancy ; lumbar surgical scar and obvious lumbar scoliosis.

Age

From **18 years** old to **75 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **222**

Randomization (investigator's opinion)

Randomized

Randomization description

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

Ethical committee of research institue,Tehran
University of Medical Sciences

Street address

Keshavraz blv,Poorsina street,North of Tehran
university ,Faculty of medicine

City

Tehran

Postal code

1417613151

Approval date

2010-09-23, 1389/07/01

Ethics committee reference number

89/d/220/22366

Health conditions studied

1

Description of health condition studied

Operations on lower abdominal or lower limbs under spinal anesthesia including general surgeries,obstetric and gynecologic surgeries and orthopedic surgeries

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Number of bone contact

Timepoint

Once at the time of block

Method of measurement

Counting the number of bone contact

Secondary outcomes

1

Description

Ease of space identification/needle insertion

Timepoint

Once at the time of block performance

Method of measurement

Easy or difficult or impossible

Intervention groups

1

Description

Intervention group:squatting position in which patient hug her/his knees while her/his buttocks and feet rest on the operating table

Category

Early detection

2

Description

Control group:traditional sitting position in which patients sit on the side of operating table while her/his feet hang and rest on a chair

Category

Early detection

Recruitment centers

1

Recruitment center

Name of recruitment center

Dr Shariati Hospital

Full name of responsible person

Sussan Soltani Mohammadi

Street address

North Kargar street, Ale-Ahmad highway

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research,Tehran University of Medical Sciences

Full name of responsible person

Dr Akbar Fotoohi

Street address

Keshavarz blv,Poorsina street

City

Tehran

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,Tehran 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**

Tehran university of medical sciences

Full name of responsible person

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Position

Associate Professor

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Postal code**Phone****Fax****Email****Web page 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