Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 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)
Phone
+98 21 2229 5296
Email address
soltanmo@sina.tums.ac.ir

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
Sussan Soltani Mohammadi
Position
Associate Professor
Other areas of specialty/work
Street address
Dr Shariati hospital,North Kargar street, Ale-Ahmad highway
City
Tehran
Postal code
Phone
+98 21 8490 2373
Fax
Email
soltanmo@sina.tums.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Sussan Soltani Mohammadi
Position
Associate professor
Other areas of specialty/work
Street address
Dr Shariati hospital, North Kargar street,Ale-Ahmad highway
City
Tehran
Postal code
Phone
+98 21 8490 2373
Fax
Email
soltanmo@sina.tums.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Tehran university of medical sciences
Full name of responsible person
Sussan Soltani Mohammadi
Position
Associate Professor
Other areas of specialty/work
Street address
Dr Shariati Hospital,North Kargar street,Ale-Ahmad highway
City
Tehran
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