

Clinical Trial Protocol

Iranian Registry of Clinical Trials

29 Jul 2026

The evaluation effect of sufentanil and bupivacaine compared to bupivacaine alone in the prevention of post-spinal headaches caused by rupture of Dura layer in pregnant women undergoing caesarean section

Protocol summary

Summary

After the University Ethics Committee approval in a randomized clinical trial 60 pregnant women candidate elective cesarean section with ASA class 1 or 2 included in the study and randomly in two groups of sufentanil with bupivacaine and bupivacaine alone. Patients with a history of coagulopathy, lack of consent to perform the spinal anesthesia, infection, history of anesthesia, migraine headaches, seizures, severe preeclampsia, eclampsia, a history of low back pain and any mass in the CNS are excluded. Before induction of spinal anesthesia the objective of research and telecommunication follow up with patients were described as well as how to express the pain VAS by the criteria as well as to educate them. Before performing spinal anesthesia, patients' consent were collected and in both groups 500 cc venous fluid were infused and blood pressure, pulse oximetry heart rate were monitored. In both groups, spinal anesthesia were in sitting position in L4-L5 space with spinal Quincke needle (25 G * 90mm). In one group 12.5 mg of bupivacaine injected and in other group 12.5 mg of cell bupivacaine with 5 µg sufentanil were injected. In the check list information of patients and phone numbers for follow up added. And up to a week the phone call will be performed. Patients were admitted for three days and headache occurrence were evaluated, and if any headache recorded the severity of the headaches in order to VAS added (VAS zero means completely without the headache and headache imaginable ten VAS is the strongest). In the case of mild and moderate headache patient support measures recommended in the event of a severe headache that disrupt the patients' daily activities recommended to return to hospital and epidural blood patch were performed by the executive producer. Finally the information collected by the software Stata11 processed and the analysis of the case performed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201610162946N8**

Registration date: **2016-10-23, 1395/08/02**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-10-23, 1395/08/02

Registrant information

Name

Mitra Yari

Name of organization / entity

Kermanshah University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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Recruitment status

Recruitment complete

Funding source

Kermanshah University of Medical Sciences

Expected recruitment start date

2016-09-22, 1395/07/01

Expected recruitment end date

2016-12-20, 1395/09/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
The evaluation effect of sufentanil and bupivacaine compared to bupivacaine alone in the prevention of post-spinal headaches caused by rupture of Dura layer in pregnant women undergoing caesarean section

Public title
The evaluation effect of sufentanil and bupivacaine compared to bupivacaine alone in the prevention of post-spinal headaches caused by rupture of Dura layer in pregnant women undergoing caesarean section

Purpose
Prevention

Inclusion/Exclusion criteria
In this study, pregnant women 18 to 40 years undergoing elective cesarean section; ASA class I, II (American Society classification of Anesthesia); BMI of 18.5 to 25 .patients were entered to this study after giving informed consent. Patients with a history of bleeding disorder, lack of consent to perform spinal anesthesia, infection, migraine, history of seizures, severe preeclampsia, eclampsia, history of back pain and bulky mass in the CNS are excluded.

Age
From **18 years** old to **40 years** old

Gender
Female

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **60**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double 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 Kermanshah University of Medical Sciences

Street address

No. 2 building of Medical University, Shahid Beheshti boulevard

City
kermanshah

Postal code
6714415333

Approval date
2015-10-20, 1394/07/28

Ethics committee reference number
KUMS.REC.1394.497

Health conditions studied

1

Description of health condition studied

headache

ICD-10 code

g44.4

ICD-10 code description

Drug-induced headache, not elsewhere classified

Primary outcomes

1

Description

headache incidence and intensity

Timepoint

0 to 7 days after spinal anesthesia

Method of measurement

by visual analogue scale

Secondary outcomes

1

Description

vital sign changes

Timepoint

every 2 minute until 10minute then every 5 minute

Method of measurement

by datascop monitor

Intervention groups

1

Description

Spinal anesthesia is performed in sitting position between L4 - L5 spaces with spinal needle Quinke (25 G * 90mm) 12.5 mg bupivacaine with 5 mcg sufentanil used.

Category

Treatment - Drugs

2

Description

Spinal anesthesia is performed in sitting position between L4 - L5 spaces with spinal needle Quinke (25 G * 90mm) 12.5 mg bupivacaine used.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Reza Hospital

Full name of responsible person

Dr. Mitra Yari

Street address

Parastar boulevard, Sorkhalijeh

City

kermanshah

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for reasearch ,Kermanshah University of Medical Sciences

Full name of responsible person

Dr. Farid Najafi

Street address

Imam Reza Hospital, Parastar boulevard, Sorkhalijeh

City

kermanshah

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Vice chancellor for reasearch ,Kermanshah 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

Kermanshah University of Medical Sciences

Full name of responsible person

Dr. Mitra Yari

Position

assistant professor, anesthesiologist

Other areas of specialty/work

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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