Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Evaluation of the effect of preoperative administration of glucose on intra and postoperative bleeding during cesarean section under spinal anesthesia

Protocol summary

Study aim
Determining the effect of preoperative administration of glucose serum on bleeding rate in cesarean section under spinal anesthesia

Design
Based on a random number table Neither the patient nor the researcher knows which group the patient is in.

Settings and conduct
Kowsar Operating Room, Shahid Sadoughi Hospital, Yazd

Participants/Inclusion and exclusion criteria
Inclusion All term pregnant women aged 20-35 years, ASA class II, candidates for non-emergency cesarean section due to a second repeat cesarean section Exclusion Patient's unwillingness to participate in the study, eclampsia, preeclampsia, diabetes, hypertension, drug and psychotropic drug addiction, cardiopulmonary, renal, hepatic diseases

Intervention groups
All patients receive 500 ml of Ringer's serum before surgery. Based on a random number table, patients are divided into two groups of 30. In the first group, 500 cc of 5% glucose serum is added, and in the second group, the same volume of normal saline is added to the Ringer's serum. This study is double-blind.Then, all patients are placed under spinal anesthesia. During the surgery, patients receive 2500 ml of intravenous Ringer's solution, and after the fetus and placenta are delivered, all patients are given 20 units of cento infusion.The amount of bleeding during the procedure is assessed by counting blood gases, suction blood volume, and estimated blood volume in the groin and groin, and the results are recorded in a questionnaire. The amount of bleeding during recovery is also assessed by estimating the amount of blood in the patient's pad. the data obtained from the questionnaires are statistically analyzed using SPSS version 23 software and the relevant statistical tests (chi square T test).

Main outcome variables
It is expected that administering preoperative glucose serum will reduce intraoperative and recovery bleeding.

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20100102002963N39**
Registration date: **2025-09-21, 1404/06/30**
Registration timing: **prospective**

Last update: **2025-09-21, 1404/06/30**
Update count: **0**

Registration date
2025-09-21, 1404/06/30

Registrant information
Name
Shekoufeh Behdad
Name of organization / entity
Shahid Sadoughi University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 35 1822 1386
Email address
drbehdad@ssu.ac.ir

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2025-09-23, 1404/07/01
Expected recruitment end date
2026-03-20, 1404/12/29
Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effect of preoperative administration of glucose on intra and postoperative bleeding during cesarean section under spinal anesthesia

Public title

effect of of glucose on bleeding during cesarean section

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

pregnancy ASA class 2 Candidate for non-emergency cesarean section due to second repeat cesarean section term pregnancy

Exclusion criteria:

Patient's unwillingness to participate in the study eclampsia preeclampsia diabetes mellitus hypertension cardiac disease lung disease kidney disease liver disease Drug and psychotropic addiction

Age

From **20 years** old to **35 years** old

Gender

Female

Phase

3

Groups that have been masked

- Participant
- Care provider

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Based on the random number table, patients are divided into two groups of 30. In the first group, 25 grams of glucose (equivalent to 500 cc of 5% glucose serum) is added to the Ringer's serum, and in the second group, the same volume of normal saline is added to the Ringer's serum. This study is double-blind. This means that neither the patient nor the researcher knows which group the patient is in.

Blinding (investigator's opinion)

Double blinded

Blinding description

Based on the random number table, patients are divided into two groups of 30. In the first group, 25 grams of glucose (equivalent to 500 cc of 5% glucose serum) is added to the Ringer's serum, and in the second group, the same volume of normal saline is added to the Ringer's serum. This study is double-blind. This means that neither the patient nor the researcher knows which group the patient is in.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Medical School - Shahid Sadoughi University of Medical Sciences, Yazd

Street address

Faculty of Medicine. Shohadayegomnam Blv.Yazd

City

Yazd

Province

Yazd

Postal code

8915887857

Approval date

2025-09-16, 1404/06/25

Ethics committee reference number

IR.SSU.MEDICINE.REC.1404.154

Health conditions studied

1

Description of health condition studied

bleeding during cesarean section

ICD-10 code

ICD-10 code description

Postpartum hemorrhage

Primary outcomes

1

Description

Reducing bleeding during cesarean section

Timepoint

Hemoglobin is measured and recorded before and six hours after the procedure Also, the amount of bleeding during the operation is assessed by counting blood gases, the amount of suctioned blood, and the estimated volume of blood in the veins and the results are recorded in a questionnaire. The amount of bleeding during recovery is also assessed by estimating the amount of blood in the patient's pad.

Method of measurement

Laboratory

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: 25 Grams of glucose (equivalent to 500 cc of 5% glucose serum) + Half a liter of Ringer's solution before surgery
Category
Treatment - Drugs

2

Description
Control group: 500 cc of normal saline + Half a liter of Ringer's solution before surgery
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid sadoughi hospital
Full name of responsible person
Dr. Shekoufeh Behdad
Street address
Shahid Sadoughi Hospital , Ebnesina Blv, Safayieh , Yazd, Iran
City
Yazd
Province
Yazd
Postal code
8916886938
Phone
+98 35 3822 4101
Email
behdad90@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Yazd University of Medical Sciences
Full name of responsible person
Amin Salehi Abargouei
Street address
Central building of Yazd University of Medical Sciences , Bahonar Square
City
Yazd
Province
Yazd
Postal code
8915887857
Phone
+98 35 3628 8114
Fax
+98 35 3628 8116
Email
dvc.research@ssu.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Yazd 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
Yazd University of Medical Sciences
Full name of responsible person
Dr Shekoufeh Behdad
Position
Faculty member and full professor of Shahid Sadoughi University of Medical Sciences, Yazd
Latest degree
Specialist
Other areas of specialty/work
Anesthesiology
Street address
Central building of Yazd University of Medical Sciences , Bahonar Square
City
Yazd
Province
Yazd
Postal code
8915887857
Phone
+98 35 3823 1932
Email
drbehdad@ssu.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Yazd University of Medical Sciences
Full name of responsible person
Dr Shekoufeh Behdad
Position
Faculty member and full professor of Shahid Sadoughi University of Medical Sciences, Yazd

Latest degree
Specialist
Other areas of specialty/work
Anesthesiology
Street address
Central building of Yazd University of Medical Sciences, Bahonar Square
City
Yazd
Province
Yazd
Postal code
8915887857
Phone
0098 35 8231932
Email
drbehdad@ssu.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Yazd University of Medical Sciences
Full name of responsible person
Dr Shekoufeh Behdad
Position
Faculty member and full professor of Shahid Sadoughi University of Medical Sciences, Yazd
Latest degree
Specialist
Other areas of specialty/work
Anesthesiology
Street address
Central building of Yazd University of Medical Sciences, Bahonar Square
City
Yazd
Province
Yazd
Postal code
8915887857
Phone
0098 35 8231932
Email
drbehdad@ssu.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
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
Undecided - It is not yet known if there will be 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
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available