Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

A comparative study on the effect of different doses of dexamethasone on blood glucose concentration in patients undergoing elective abdominal surgery

Protocol summary

Study aim

Determination of the effect of different dexamethasone doses on blood glucose concentrations in patients under elective abdominal surgery

Design

This randomized double blind clinical trial was performed on patients with elective abdominal surgery referred to Rasoul-e-Akram Hospital. The number of individuals was 96 randomly selected and randomly divided into three groups of intervention, first intervention and control.

Settings and conduct

A total of 96 patients who had undergone abdominal surgery who referred to Rasoul-e-Akram Hospital were randomly divided into three groups (two intervention and one control group). Also, the grouping of the patients and the type of drug used for the subjects involved in the study are blinded.As the patient, researcher and data analyst will be blind.(double blinded)

Participants/Inclusion and exclusion criteria

Encluding criteria: Patients undergoing abdominal surgery, aged 18-65 years. Excluding criteria: Cardiovascular, pulmonary, renal, hepatic, diabetic patients - Dissatisfaction to enter the study - Recent history of steroid use - History of allergy to any of the drugs used in the study.

Intervention groups

In a group ,4 mg intravenous dexamethasone is injected at the beginning of the surgery, and in the second group, 8 mg dexamethasone and the third group, placebo (normal saline) are injected.

Main outcome variables

After surgery, blood glucose levels were measured and recorded by the nurse at 6 hours and 24 hours after administration of dexamethasone or placebo. After recording the data, the results of the three groups are compared and analyzed statistically.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120814010599N13**
Registration date: **2017-12-21, 1396/09/30**
Registration timing: **prospective**

Last update: **2017-12-21, 1396/09/30**
Update count: **0**

Registration date

2017-12-21, 1396/09/30

Registrant information

Name
Poupak Rahimzadeh

Name of organization / entity
Iran University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 21 6650 9059

Email address
p-rahimzadeh@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-12-22, 1396/10/01

Expected recruitment end date

2018-04-21, 1397/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
A comparative study on the effect of different doses of dexamethasone on blood glucose concentration in patients undergoing elective abdominal surgery

Public title
Effect of dexamethasone on blood glucose concentration
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
All people who are candidates for abdominal surgery
Exclusion criteria:
cardiovascular patients Recent history of steroid use History of allergy to any of the drugs used in the study. pulmonary patients renal patients hepatic patients DM patients
Age
From **18 years** old to **65 years** old
Gender
Both

Phase
2-3
Groups that have been masked

- Participant
- Investigator
- Data analyser

Sample size
Target sample size: **96**
Randomization (investigator's opinion)
Randomized
Randomization description
Patients who are included in the study are divided into three groups based on the randomization block using a random number table.
Blinding (investigator's opinion)
Double blinded
Blinding description
The patient does not know which medicine he receives. The nurse is aware; the researcher like the patient does not know which patient is in what group and which method he receives. The counselor, as well as the nurse, knows which patient, which method Receives.
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Iran University of Medical Science
Street address
Iran University of Medical Sciences,next to Milad Tower,Hemmat Highway,Tehran
City
Tehran
Province
Tehran
Postal code
1449614535
Approval date
2015-12-09, 1394/09/18
Ethics committee reference number
ir.iums.rec.1394.8821215176

Health conditions studied

1

Description of health condition studied
Hyperglycemia due to steroid
ICD-10 code
T38.0X5A
ICD-10 code description
Adverse effect of glucocorticoids

Primary outcomes

1

Description
blood glucose levels
Timepoint
After surgery, at 6 hours and 24 hours after administration of dexamethasone or placebo.
Method of measurement
Blood glucose is measured using a glucometer

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1 : . Before the intervention, blood glucose and other basic indicators are checked. 32 patients In a group ,4 mg intravenous dexamethasone is injected at the beginning of the surgery, The drugs are prepared by the operating room pharmacy in 3 ml syringes labeled as patient name. . After surgery, blood glucose levels were measured and recorded by the nurse at 6 hours and 24 hours after administration of dexamethasone or placebo.
Category
Prevention

2

Description

Intervention group 2 : . Before the intervention, blood glucose and other basic indicators are checkedand. 32 patients in the second group, 8 mg dexamethasoneare injected. The drugs are prepared by the operating room pharmacy in 3 ml syringes labeled as patient name. After surgery, blood glucose levels were measured and recorded by the nurse at 6 hours and 24 hours after administration of dexamethasone or placebo.

Category

Prevention

3

Description

Control group: Before the intervention, blood glucose and other basic indicators are checked. 64 patients in the third group, placebo (normal saline) are injected. . The drugs are prepared by the operating room pharmacy in 3 ml syringes labeled as patient name.. After surgery, blood glucose levels were measured and recorded by the nurse at 6 hours and 24 hours after administration of dexamethasone or placebo.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Rasool-E-Akram hospital

Full name of responsible person

Dr. Mehrdad KHodabandeh

Street address

Rasool-e-Akram hospital, Niayesh street, Satarkhan street

City

Tehran

Province

Tehran

Postal code

1445613131

Phone

+98 21 8670 2503

Email

khodabandeh.mehrdad@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Ali Javad Mosavi

Street address

ran University of Medical Sciences , next to Milad Tower, Hemmat Highway

City

Tehran

Province

Tehran

Postal code

1449614535

Phone

+98 21 86701

Email

khodabandeh.mehrdad@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iran 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

Iran University of Medical Sciences

Full name of responsible person

Poupak Rahimzadeh

Position

Associate Professor

Latest degree

Subspecialist

Other areas of specialty/work

Anesthesiology

Street address

Fifth floor, Central staff, Iran University of Medical Sciences, Hemmat Highway

City

Tehran

Province

Tehran

Postal code

1445613131

Phone

+98 21 8670 2503

Fax

+98 21 6650 9059

Email

p-rahimzadeh@tums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person
Poupak Rahimzadeh
Position
Associate Professor
Latest degree
Subspecialist
Other areas of specialty/work
Anesthesiology
Street address
Fifth floor, Central staff, Iran University of Medical Sciences, Hemmat Highway
City
Tehran
Province
Tehran
Postal code
1445613131
Phone
+98 21 8670 2503
Fax
+98 21 6650 9059
Email
p-rahimzadeh@tums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Iran University of Medical Sciences
Full name of responsible person
Poupak Rahimzadeh
Position
Associate Professor
Latest degree
Subspecialist
Other areas of specialty/work
Anesthesiology
Street address
Fifth floor, Central staff, Iran University of Medical Sciences, Hemmat Highway
City
Tehran
Province
Tehran
Postal code
1445613131
Phone
+98 21 8670 2503
Fax
+98 21 6650 9059
Email
p-rahimzadeh@tums.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
Data file of people not identifiable, protocol of doing the study,How to analyze data,informed consent from individuals, A report from a clinical study and its outcome
When the data will become available and for how long
Start the access period : 1 month after printing results
To whom data/document is available
Researchers working in academic centers
Under which criteria data/document could be used
Specific conditions for use by individuals will not be considered
From where data/document is obtainable
Contact Dr. Mehrdad Khodabandeh by email khadabandeh.mehrdad@gmail.com
What processes are involved for a request to access data/document
By sending an email and requesting the request, after a day, the information will be sent to the person
Comments