

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jul 2026

A study on the effect of the duration of subcutaneous heparin injection on bruising and pain in patients hospitalized in the Panj Azar teaching hospital of Gorgan

Protocol summary

Summary

The purpose of this study is to determine the effectiveness of the duration of the Heparin injection on the site pain intensity and bruising extent associated with subcutaneous heparin injection in patients of the PanjAzar hospital, Gorgan. This quasi-experimental study is design on 119 patients hospitalized in Panje Azar, hospital. For each patient two subcutaneous injection, 10 seconds and 30 seconds will be performed. The interval between two injections is 12 hours. Data collection will perform by using a check-list consisting of two sections, demographic characteristics and a section to record the extent of bruising. Extent of bruising are measured using transparent mill metric measuring ruler within 48-60 hours and pain intensity using by Visual AnalogScale (VAS) immediately after heparin injection.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201105105866N3**
Registration date: **2011-06-12, 1390/03/22**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-06-12, 1390/03/22

Registrant information

Name

Akram Sanagoo

Name of organization / entity

Golestan University of Medical Sciences

Country

Iran (Islamic Republic of)

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+98 17 1443 0360

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Golestan University Of Medical Sciences

Expected recruitment start date

2009-06-15, 1388/03/25

Expected recruitment end date

2010-06-15, 1389/03/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A study on the effect of the duration of subcutaneous heparin injection on bruising and pain in patients hospitalized in the Panj Azar teaching hospital of Gorgan

Public title

Effects of injection duration on pain intensity and bruising Ihospitalized patient

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Being a patient for heparin subcutaneous injection; conscious enough to participate and not manipulate injection area by rubbing, scratching and touching the injection site. Exclusion criteria: Discontinuation of subcutaneous injection of heparin or discharge patients within 48 hours, unilateral sensory and neurological defect, any type of skin lesion barrier to

assessing bruising, allergic disease, pregnant patients, hematological diseases and the patients who had been given any other injections at the arm site apart from heparin during the days of the research

Age

From **14 years** old to **90 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **119**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Crossover

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Golestan University of Medical Sciences Ethics Committee

Street address

Golestan University Of Medical Sciences, Gorgan, Iran

City

Gorgan

Postal code

00981714430360

Approval date

2009-06-14, 1388/03/24

Ethics committee reference number

35.129896

Health conditions studied

empty

Primary outcomes

1

Description

Pain intensity

Timepoint

48 to 60 hours after injection

Method of measurement

Visual Analog Scale

2

Description

Extent of bruising

Timepoint

48 to 60 hours after injection

Method of measurement

Using flexible transparent Ruler

Secondary outcomes

empty

Intervention groups

1

Description

For each patient 10 second subcutaneous injection, will be performed and 12 hours later, 30 second injection perform for the same patient.

Category

Treatment - Other

2

Description

For each patient 30 second subcutaneous injection, will be performed and 12 hours later, 10 second injection perform for the same patient.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Panj-Azar Hospital

Full name of responsible person

Street address

City

Gorgan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Golestan University of Medical Sciences

Full name of responsible person

Dr. Mohsen Aarabi

Street address

Vice chancellor for research, Golestan University Of Medical Sciences

City

Gorgan

Grant name

Grant code / Reference number**Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Golestan 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**

Golestan University Of Medical Sciences

Full name of responsible person

Akram Sanagoo PHD

Position

Nursing Education, Assistant Professor

Other areas of specialty/work**Street address**

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Golestan University Of Medical Sciences

Full name of responsible person

Ahmad Shir Afkan MD

Position

Cardiologist

Other areas of specialty/work**Street address**

Panj-Azar Teaching Hospital

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Web page address**Person responsible for updating data****Contact****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*