Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 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)

Phone

+98 17 1443 0360

Email address

sanagoo@goums.ac.ir

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 lhospitalized 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
Golestan University of medical Sciences, Bouyeh School of Nursing & midwifery, Shastkola Road, Gorgan
City
Gorgan
Postal code
Phone
+98 17 1443 0360
Fax
Email
a_sanagu@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
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
City
Gorgan
Postal code
Phone
+98 17 1222 0561
Fax
Email
a_sanagu@yahoo.com sanagoo@goums.ac.ir
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