Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The effect of manual pressure on intramuscular injection pain

Protocol summary

Summary

Pain is one of the common experiences with intramuscular (IM) injection. Application of pain relieving technique leads to promotion of patients' satisfaction and comfort. This study was done to evaluate manual pressure effectiveness on IM injection pain. Methods: in this experimental study, 98 outpatients that refer to Gorgan 5th Azar hospital will be randomly allocated to intervention (n=50) and control (n=48) group. In the intervention group, immediately before IM injection of penicillin, manual pressure with thump finger will be applied to injection site for 10s. Control group injections will be done without any intervention as a routine way. After injection, pain will be measured with visual analog scale (VAS) from zero to 10. All the injections in the male patients are conducted by a male nurse while a female nurse inject the female patients. Pain will be measured by a nurse that she is not aware about patients grouping.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201208158731N2**
Registration date: **2012-08-26, 1391/06/05**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2012-08-26, 1391/06/05

Registrant information

Name

Hossein Rahmani_anaraki

Name of organization / entity

Golestan University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Golestan university of medical sciences

Expected recruitment start date

2012-09-05, 1391/06/15

Expected recruitment end date

2013-03-05, 1391/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of manual pressure on intramuscular injection pain

Public title

The effect of manual pressure on intramuscular injection pain

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: upper 18 and lower 65 years old; not to exist any redness and bruising in injection site; no other intra muscular injection in buttock site in a week ago; enable to express pain of injection; not to use analgesic medication four hours before injection.

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size
Target sample size: **98**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Golestan university of medical sciences

Street address
Kilometer 2 of Gorgan-Sari road

City
Gorgan

Postal code

Approval date
2011-07-06, 1390/04/15

Ethics committee reference number
837/35/پ گ

Health conditions studied

1

Description of health condition studied
Pain

ICD-10 code
T08-T14

ICD-10 code description
Injuries to unspecified part of trunk, limb or body region

2

Description of health condition studied
skin and subcutaneous injury

ICD-10 code
L99

ICD-10 code description
Other disorders of skin and subcutaneous tissue in diseases classified elsewhere

Primary outcomes

1

Description
Pain

Timepoint
Immediately after injection

Method of measurement
visual analogue scale

Secondary outcomes

empty

Intervention groups

1

Description
Control group: injection will be done without any intervention as a routine way.

Category
Prevention

2

Description
Intervention group: immediately before IM injection of penicillin, manual pressure with thump finger is applied to njection site for 10s.

Category
Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center
5th Azar educational and therapeutic center

Full name of responsible person
Hossein Rahmani Anaraki

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
kilometer 2 of Gorgan-Sari road

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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
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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