

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 2026

A comparison between nitroglycerin skin patch and nifedipin for the treatment of preterm labor

Protocol summary

Summary

Normal saline was infused for all women during 30 minutes, and betamethasone was prescribed 12 mg IM, 24 hours apart for 2 doses. The women were randomly divided to 2 groups. 2 groups of women were adjusted according to age. In one group nifedipin and the other group TNG patch (which is a nitric oxide donor and each skin patch contains 10 mg TNG) were used. Blood pressure was monitored every 15 minutes for 1 hour then every 4 hours. First Nitroglycerin patch was removed after 24 hours and the second patch was used for 24 hours. nifedipin (IS A CALCIUM channel blocking agent and each capsule is 10 mg) group: At first, 4 capsules of Nifedipin were prescribed every 20 minutes. Then, for the first 24 hours 2 capsules were prescribed every 6 hours, and for the second 24 hours 2 capsules every 8 hours and for the third 24 hours 1 capsule every 6 hours and for the fourth day 1 capsule every 8 hours were prescribed. Response to treatment was defined as arrest of contractions.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201108262624N8**

Registration date: **2012-06-05, 1391/03/16**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-06-05, 1391/03/16

Registrant information

Name

Maryam Kashanian

Name of organization / entity

Iran University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2011-04-03, 1390/01/14

Expected recruitment end date

2012-06-04, 1391/03/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A comparison between nitroglycerin skin patch and nifedipin for the treatment of preterm labor

Public title

Treatment of preterm labor

Purpose

Treatment

Inclusion/Exclusion criteria

All women who had 4 uterine contractions in 20 minutes or cervical dilatation = 1 cm and effacement = 80% with a gestational age of 26 to 36 weeks were entered the study. Exclusion criteria were: PROM; any maternal or fetal indications for pregnancy termination; IUFD; dilatation of more than 5 cm; allergy to TNG and tocolytic use during previous 24 hours.

Age

No age limit

Gender

Female

Phase

3

Groups that have been masked*No information***Sample size**Target sample size: **120****Randomization (investigator's opinion)**

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees1**Ethics committee****Name of ethics committee**

Tehran University of Medical Sciences

Street address

Akbarabadi Hospital, Molavi Street, Molavi cross.

City

Tehran

Postal code**Approval date**

2012-04-24, 1391/02/05

Ethics committee reference number

130/2704/90/s

Health conditions studied1**Description of health condition studied**

Preterm labor

ICD-10 code

060-075

ICD-10 code description

Onset (spontaneous) of labour before 37 completed weeks of gestation

Primary outcomes1**Description**

preterm labor

Timepoint

48 hours and 7 days

Method of measurement

delivery

Secondary outcomes1**Description**

adverse effects of drugs

Timepoint

every 15 minutes for 1 hour then every 4 hours

Method of measurement

blood pressure measurement

Intervention groups1**Description**

Nifedipin prescription

Category

Treatment - Drugs

2**Description**

TNG skin patch prescription

Category

Treatment - Drugs

Recruitment centers1**Recruitment center****Name of recruitment center**

Akbarabadi Hospital

Full name of responsible person

Maryam Kashanian

Street address**City**

Tehran

Sponsors / Funding sources1**Sponsor****Name of organization / entity**

Tehran University of Medical Sciences

Full name of responsible person

Dr Akbar Fotoohi

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Ghods avenue, Keshavarz cross

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

Yes

Title of funding source

Tehran 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**

Tehran University of Medical Sciences

Full name of responsible person

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Fax**Email****Web page address****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*