Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Effectiveness of coordinative locomotor training on pain, balance and gait in chemotherapy induced peripheral neuropathy patients

Protocol summary

Study aim
To determine the effect of coordinative locomotor training on pain, balance and gait in chemotherapy induced peripheral neuropathy patients

Design
A randomized controlled trial with two parallel groups, a single blinded study of 3rd phase with 19 patients in each group which in total is 38

Settings and conduct
Allied Hospital Faisalabad, Madina teaching hospital Faisalabad. patientswill be kept unaware which group they are allocated to.

Participants/Inclusion and exclusion criteria
• Age 35 to 60 years • Both genders male and female • Willing to participate in research • Cancer patients of stage I-Ⅲ • Receiving neurotoxic drugs (platinum based, taxanes based or both in combination) • Have received at least 4 cycles of chemotherapy treatment • Having numbness and tingling in distal areas • Pain in distal areas • At medium (19-24) to high (<19) risk of fall according to POMA • Able to communicate in Punjabi/Urdu/English • Cognitive dysfunction (Mini-Mental State exam score˂24) • Any recent major surgery • Unhealed lower extremity fracture • Having diabetic neuropathy before getting chemotherapy drugs • Other neurological problems including brain cancer • Cardiovascular diseases • Bone metastasis • Lower limb lymphedema • Musculoskeletal problems • amputated limb • with abnormal visual or auditory senses • uncooperative patients

Intervention groups
Group A: coordinative locomotor training group. Group B: Conventional therapy group

Main outcome variables
1.pain 2.balance 3.gait

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20240311061260N1**
Registration date: **2024-05-03, 1403/02/14**
Registration timing: **prospective**

Last update: **2024-05-03, 1403/02/14**
Update count: **0**

Registration date
2024-05-03, 1403/02/14

Registrant information

Name
Aqsa Liaqat

Name of organization / entity
The University of Faisalabad

Country
Pakistan

Phone
+92 323 6002906

Email address
2022-ms-pt-047@tuf.edu.pk

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-05-06, 1403/02/17

Expected recruitment end date
2024-08-05, 1403/05/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effectiveness of coordinative locomotor training on pain, balance and gait in chemotherapy induced peripheral

neuropathy patients

Public title
Effectiveness of coordinative locomotor training on pain, balance and gait in chemotherapy induced peripheral neuropathy patients
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age 35 to 60 years Both genders male and female Willing to participate in research Cancer patients of stage I-Ⅲ Receiving neurotoxic drugs (platinum based, taxanes based or both in combination) Have received at least 4 cycles of chemotherapy treatment Having numbness and tingling in distal areas Pain in distal areas At medium (19-24) to high (<19) risk of fall according to POMA Able to communicate in Punjabi/Urdu/English
Exclusion criteria:
Cognitive dysfunction (Mini-Mental State exam score˂24) Any recent major surgery Having diabetic neuropathy before getting chemotherapy drugs Unhealed lower extremity fracture Other neurological problems including brain cancer Cardiovascular diseases Bone metastasis Lower limb lymphedema Musculoskeletal problems Amputated limb With abnormal visual or auditory senses Uncooperative patients
Age
From **35 years** old to **60 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant

Sample size
Target sample size: **38**
Randomization (investigator's opinion)
Randomized
Randomization description
Participants selected through purposive sampling will be randomly allocated through lottery method to either intrventional group or active control group.
Blinding (investigator's opinion)
Single blinded
Blinding description
The participant in this study will be blinded as they will be randomly allocated through lottery method
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Research and Ethics/Technical Committee for the University of Faisalabad
Street address
University Avenue, Faisal Town Canal Road
City
Faisalabad
Postal code
38000
Approval date
2024-02-17, 1402/11/28
Ethics committee reference number
TUF/DR/SA/MSPP/2024/408

Health conditions studied

1

Description of health condition studied
Chemotherapy induced peripheral neuropathy
ICD-10 code
G64
ICD-10 code description
Other disorders of peripheral nervous system

Primary outcomes

1

Description
Pain
Timepoint
Before treatment and at the end of 4 weeks of intervention
Method of measurement
Numerical pain rating scale(NPRS) was used

2

Description
Balance
Timepoint
Before the treatment and at the end of 4 weeks of intervention
Method of measurement
Performance oriented mobility assessment (POMA)

3

Description
Gait
Timepoint
Before the treatment and at the end of 4 weeks of intervention
Method of measurement
Timed up and go test(TUG), F8WT(figure of 8 walk test)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Coordinative Locomotor Training group
Category
Treatment - Other

2

Description
Control group: conventional training (Reaching out with hands crossed in sitting position, Sitting and getting up from chairs of various heights, Stepping forward, backward and sideways, Toe standing, Standing balanced and straight, Standing up from chair walk a certain distance and return to sit down, Climbing stairs)
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Allied Hospital Faisalabad
Full name of responsible person
Anbreena Rasool
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2

Recruitment center
Name of recruitment center
Madinah Teaching Hospital
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Sponsors / Funding sources

1

Sponsor
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The University of Faisalabad
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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
The University of Faisalabad
Proportion provided by this source
100
Public or private sector
Private
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
The University of Faisalabad
Full name of responsible person
Aqsa Liaqat
Position
Student
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
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Person responsible for scientific inquiries

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Person responsible for updating data

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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
No - There is not 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
Effectiveness of Coordinative locomotor training on pain, balance and gait in chemotherapy induced peripheral neuropathy patients
When the data will become available and for how long
Starting 6 months after publication and it will remain available for everyone
To whom data/document is available
This will be available for everyone
Under which criteria data/document could be used
assistant.professor.rehab.419@tuf.edu.pk (mobile no. +92 345 7936825)
From where data/document is obtainable
aqsa786liaqat@gmail.com (mobile no. +92 335 7813723)
What processes are involved for a request to access data/document
Any applicant just need to contact through email at aqsa786liaqat@gmail.com (mobile no. +92 335 7813723)
Comments