Clinical Trial Protocol
Iranian Registry of Clinical Trials

01 Nov 2026

Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients

Protocol summary

Study aim
The aim of this study is to focus on understanding the mechanics of the spontaneous breathing pattern of people with bronchiectasis, and its determinants, to provide a rational basis for physical therapy management. Interventions that focus on optimizing respiratory mechanics may result in a better therapeutic outcome rather than a focus on breathing patterns that primarily may be the result of impaired respiratory mechanics.

Design
A randomized clinical trial with parallel groups, with 20 patients divided into 2 groups by lottery

Settings and conduct
The study will be conducted at Gulab Devi Chest Hospital Lahore

Participants/Inclusion and exclusion criteria
Inclusion criteria: both men and women; aged between 40-60 years; diagnosed with Acute bronchiectasis.
Exclusion criteria: patients with cardiac, metabolic or endocrine disorders, having an acute chest infection, cardiac or other surgeries; patients with a diagnosis of cancer or active gastrointestinal problems; patients requiring supplemental oxygen and patients with chronic bronchiectasis.

Intervention groups
Group A will be treated by stacked breathing and group B will be treated by pursed-lip breathing. Both groups will be followed by standardized physiotherapy treatment which includes active cycling breathing techniques (ACBT).

Main outcome variables
FEV,FVC,PEF and Wellbeing

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20211222053488N1**
Registration date: **2022-01-06, 1400/10/16**
Registration timing: **retrospective**

Last update: **2022-01-06, 1400/10/16**
Update count: **0**

Registration date
2022-01-06, 1400/10/16

Registrant information

Name
Salman Deedar

Name of organization / entity
Riphah International University, Lahore, Pakistan

Country
Pakistan

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2020-07-01, 1399/04/11

Expected recruitment end date
2021-01-30, 1399/11/11

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients

Public title
Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients
Purpose
Diagnostic
Inclusion/Exclusion criteria
Inclusion criteria:
Both genders. Aged between 40 to 60 years. Acute bronchiectasis
Exclusion criteria:
Patients with cardiac, metabolic or endocrine disorders. Acute chest infection. Having cardiac or other surgeries. Patients with a diagnosis of cancer or active gastrointestinal problems. Those requiring supplemental oxygen. Chronic bronchiectasis
Age
From **40 years** old to **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **20**
More than 1 sample in each individual
Number of samples in each individual: **1**
In this study each participant contribute as one sample to the trail.
Randomization (investigator's opinion)
Randomized
Randomization description
Simple random sampling will be used to select 20 patients. After taking consent these 20 patients will be equally recruited in groups either in Intervention group A or Intervention group B by Lottery method of randomization. These 20 patients of the population will be assigned a number, after which numbers will be selected at random. We will draw numbers from the box randomly to choose the sample. 10 individuals will be placed in each group.
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Riphah ethical committee
Street address
28M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat,Lahore, Pakistan
City
Lahore
Postal code
42000
Approval date
2021-07-01, 1400/04/10
Ethics committee reference number
342573

Health conditions studied

1

Description of health condition studied
Bronchiectasis
ICD-10 code
J47
ICD-10 code description
Bronchiectasis

Primary outcomes

1

Description
FEV
Timepoint
First visit (baseline) and after 4 weeks
Method of measurement
peak flow meter will be used as a tool in this study

2

Description
FVC
Timepoint
First visit (baseline) and after 4 weeks
Method of measurement
peak flow meter will be used as a tool in this study

3

Description
PEF
Timepoint
First visit (baseline) and after 4 weeks
Method of measurement
peak flow meter will be used as a tool in this study

4

Description
Wellbeing
Timepoint
First visit (baseline) and after 4 weeks
Method of measurement
St. George questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: Stacked breathing will be used 3-4 times per day with 8-10 repetations for 4-5 days per week along with baseline treatment of ACBT. Each standardized ACBT cycle will be around two minutes with duration of each session for 15 mins, 3-4 times daily. Peak flow meter will be used as a measuring tool.
Category
Rehabilitation

2

Description
Intervention group 2: Pursed-lip breathing will be used 3-4 times per day with 8-10 repetations for 4-5 days per week along with baseline treatment of ACBT. Each standardized ACBT cycle will be around two minutes with duration of each session for 15 mins, 3-4 times daily. St. George questionnaire will be used as a measuring tool.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Gulab Devi Chest Hospital Lahore
Full name of responsible person
Qurat-ul-Ain
Street address
28 M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat, Lahore, Pakistan
City
Lahore
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Riphah International University, Lahore, Pakistan
Full name of responsible person
Qurat-ul-Ain
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28-M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat, Lahore, Pakistan
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Nil
Proportion provided by this source
80
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
Riphah International University
Full name of responsible person
Salman
Position
Studen
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
There is no further information
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available