

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

Protocol summary

Study aim

The main aim of this study is to see the comparison between stretching of respiratory accessory muscles and ribs mobilisation to improve chest expansion, level of dyspnea and vital capacity in COPD patients

Design

Two parallel groups: group A have stretching of respiratory accessory muscles and group B have ribs mobilization. Sample size is 50 which is collected from single center (Rabia Trust Hospital Faisalabad). Randomization will be through lottery method, single blinded study will be conducted in which only patient would be blinded.

Settings and conduct

This study is conducted in Rabia Trust Hospital Faisalabad. Randomization is done by lottery method. Sealed envelope method is use for blinding of participant.. grouping of 2 envelopes showed to patient, once he selected one of them, he will be the part of that Two groups are made. Sealed envelope will made upon with allocation of participants in both groups can be possible without biasness

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Age: 30-55 years, Patients who are diagnosed with COPD according to GOLD, Patients with acute and moderate history of COPD, Both males and females, Haemodynamically stable patients who will be willing participate in the study. Exclusion Criteria: Patients having lung carcinoma and acute inflammatory condition, Patients having cardiac or neuromuscular disease, Patients having recent surgery history and recent chest injury, Patients having severe or very severe history of COPD, COVID-19 patients, Patients with broken ribs, bruised ribs, fractured ribs, Patients having Fibromyalgia, Patients with costochondritis, Patients with pleurisy.

Intervention groups

Two groups Group A stretching of respiratory accessory muscles Group B ribs mobilization

Main outcome variables

Xiphisteranl chest expansion, Perceived dyspnea, Vital capacity

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220514054851N1**

Registration date: **2022-05-27, 1401/03/06**

Registration timing: **prospective**

Last update: **2022-05-27, 1401/03/06**

Update count: **0**

Registration date

2022-05-27, 1401/03/06

Registrant information

Name

Rabia Anwar

Name of organization / entity

The University Of Faisalabad

Country

Pakistan

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+92 300 8431018

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mspp-fa20-025@tuf.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-06-13, 1401/03/23

Expected recruitment end date

2022-06-20, 1401/03/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

Public title

Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

Purpose

Education/Guidance

Inclusion/Exclusion criteria**Inclusion criteria:**

Patients within age group of 30-55 years Patients who are diagnosed with chronic obstructive pulmonary disease according to global initiative for chronic obstructive pulmonary disease Patients with acute and moderate history of chronic obstructive pulmonary disease Both males and females Haemodynamically stable patients who will be willing participate in the study

Exclusion criteria:

Patients having lung carcinoma and acute inflammatory condition Patients having cardiac or neuromuscular disease Patients having recent surgery history and recent chest injury Patients having severe or very severe history of chronic obstructive pulmonary disease Corona virus disease of 2019 patients Patients with broken ribs, bruised ribs, fractured ribs Patients having Fibromyalgia Patients with costochondritis Patients having pleurisy

Age

From **30 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization is done by lottery method. Sealed envelope method is use for blinding of participant. Grouping of 2 envelopes showed to patient, once he selected one of them, he will be the part of that Two groups are made. Sealed envelope will made upon with allocation of participants in both groups can be possible without biasness

Blinding (investigator's opinion)

Single blinded

Blinding description

Participant is blinded that means they don't know what treatment the other group gets

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of the university of faisalabad

Street address

Abdullah city, samundari road

City

Faisalabad

Postal code

38000

Approval date

2022-03-13, 1400/12/22

Ethics committee reference number

1021

Health conditions studied**1****Description of health condition studied**

Chest expansion in COPD

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Chest expansion

Timepoint

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

Method of measurement

Measuring tape

Secondary outcomes**1****Description**

Dyspnea

Timepoint

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

Method of measurement

Modified borg dyspnea scale

2

Description

Vital capacity

Timepoint

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

Method of measurement

Spirometry

Intervention groups

1

Description

Intervention group 1 will receive stretching of respiratory accessory muscles. There will be two sets, ten repetitions for each muscle with a one-min interval between them. The session will be given 3 days a week and it will be continued for 4 weeks. Variables will be measured at baseline, after 2 weeks and again after 2 weeks.

Category

Rehabilitation

2

Description

Intervention group 2 will receive ribs mobilization. There will be two sets of ten repetitions for each rib with one min interval between them for 3 days a week and it will be continued for 4 weeks. Variables will be measured at baseline, after 2 weeks and again after 2 weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rabia Trust Hospital, Faisalabad

Full name of responsible person

Dr. Mehar Imran (pulmonologist)

Street address

Abdullah city, samundari road

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Faisalabad

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Phone

+92 300 8431018

Email

rabiaanwar853@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The university of faisalabad

Full name of responsible person

Dr Sidra Majeed

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Email

rabiaanwar853@gmail.com

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

Foreign

Category of foreign source of funding

UN agencies and international organizations

Country of origin

Pa

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

Dr Sidra Majeed

Position

Assistant professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

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Person responsible for scientific

inquiries

Contact

Name of organization / entity

The university of faisalabad

Full name of responsible person

Dr Sidra Majeed

Position

Assistant professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data

Contact

Name of organization / entity

Rabia trust hospital, faisalabad

Full name of responsible person

Dr Mehr Imran

Position

Consultant pulmonologist

Latest degree

Master

Other areas of specialty/work

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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

No - There is not a plan to make this available

Title and more details about the data/document

IPD collected for primary and secondary outcome measures

When the data will become available and for how long

January 2023

To whom data/document is available

People working in any domain can be authorized to get this data

Under which criteria data/document could be used

Any wrong information or editorial errors

From where data/document is obtainable

This data is only available on demand via email mention to the person responsible

What processes are involved for a request to access data/document

Documents can also be processed via university emails

Comments

Data is private legacy respect it