Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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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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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38000
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
Street address
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Phone
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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
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Person responsible for scientific

inquiries

Contact

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Dr Sidra Majeed
Position
Assistant professor
Latest degree
Master
Other areas of specialty/work
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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 pulmonogist
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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