



# To Compare Patients Presenting In ED With COPD And Bronchiectasis With Acute Presentation Using The SGRQ Score.

Submitted: 01-06-2021

Revised: 13-06-2021

Accepted: 15-06-2021

## I. INTRODUCTION

The Forum of International Respiratory Societies had stated the five conditions primarily contributing to the burden of respiratory disease across globe are: **asthma, chronic obstructive pulmonary disease, acute respiratory infections, tuberculosis, and lung cancer**

- However, the overall impact of COPD and bronchiectasis on individuals is multi-faceted and not entirely reflected by these clinical parameters.
- For this reason it is now realized that no single measure can adequately reflect the nature or severity of COPD and bronchiectasis and it often needs to be supplemented by other indicators from a patient's perspective, such as those related to patient-report outcomes (PROs) or health-related quality of life (HRQOL).

## II. AIM

- To compare acute presentations among COPD and bronchiectasis patients presenting to ED using the SGRQ score.

## III. OBJECTIVES

To compare acute presentations among COPD and bronchiectasis patients presenting to ED using the SGRQ score

Materials and Method

- A cross-sectional prospective observational study was carried out to evaluate the acute presentations among COPD and bronchiectasis patients presenting to ED using the SGRQ score
- Ethical clearance was obtained from the ethical committee of Moolchand hospital, Lajpatnagar III, New Delhi
- Information sheet was provided to each subject before taking informed consent from them prior to the examination

## IV. STUDY POPULATION

- Based on the results of pilot study done on 20 subjects, the sample size determined was 167.

- The participants who were part of pilot study were not included again in the main study to avoid bias.
  - Necessary modifications were made in the study proforma.
  - Study setting: The study was conducted in the Emergency department (ED) of Moolchand Hospital, Lajapt Nagar III
  - Study population was patients reporting to the Emergency department
  - Recruitment of subjects was done on the basis of the inclusion and exclusion criteria.
  - Study intervention: There were no additional interventions apart from the routine ones done initially for the patients care.
  - **Inclusion criteria:**
  - Patients who Subjects who were willing to participate after reading the information sheet and signing the informed consent.
  - Age more than 35 years old
  - Complaints of SOB, fever, chest pain, cough , sputum, DOE, etc
  - **Exclusion criteria:**
  - Patients who did not give consent after reading information sheet
- St George's Respiratory Questionnaire

- The SGRQ-C was developed from the SGRQ which was designed to measure health impairment in patients with asthma and COPD.
- It is in two parts.

**Part 1-Symptoms** - this component is concerned with the effect of respiratory symptoms, their frequency and severity.

### Part II-

**Activity** - concerned with activities that cause or are limited by breathlessness

**Impacts** - covers a range of aspects concerned with social functioning and psychological disturbances resulting from airways disease

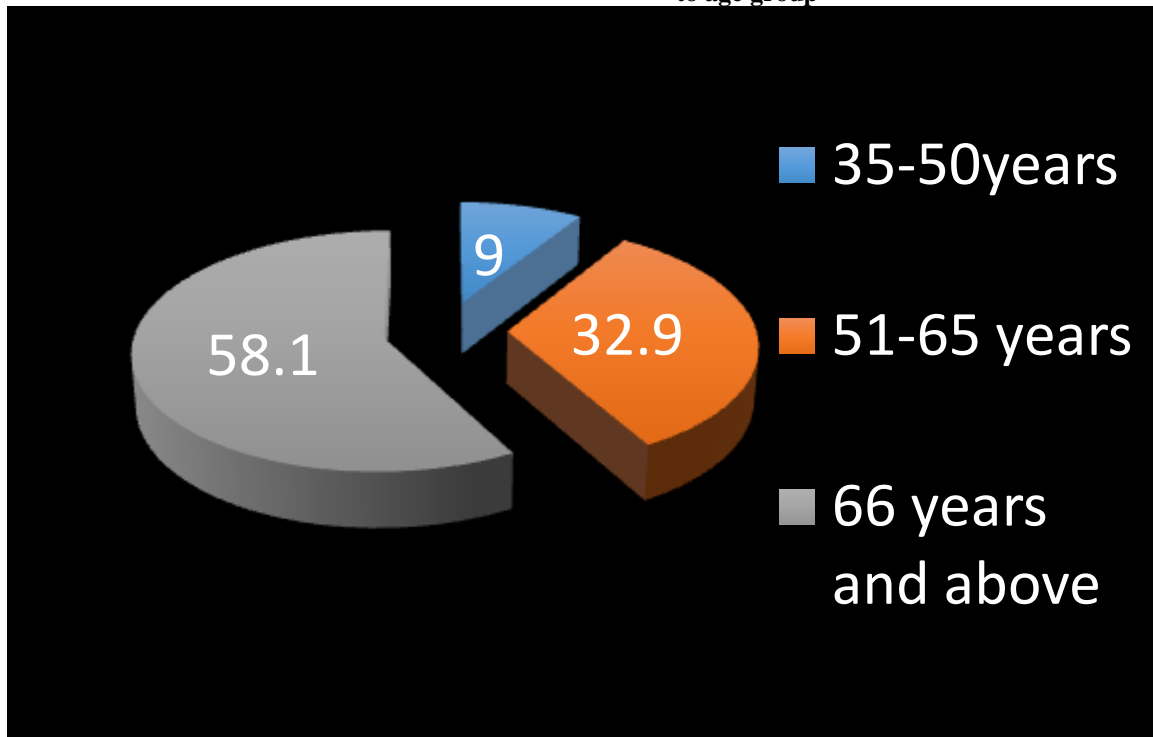
- A Total score is also produced.

## V. STATISTICAL ANALYSIS

- The Department of Biostatistics of Moolchand was consulted to provide support throughout the process.

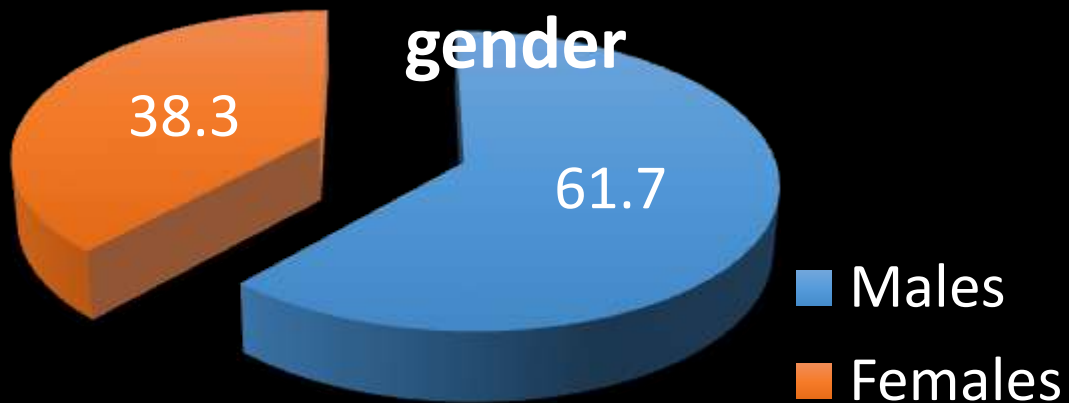


- Data was analyzed using Statistical Package for Social Sciences (SPSS) version 21, IBM Inc.
- Descriptive data was reported for each variable.
- Summarized data was presented using Tables and Graphs.
- Data was not normally distributed as tested using the Shaperio-Wilk W test (p-value was more than 0.05).
- Kruskalwallis and Mann whitney U test was used to calculate SQRG scores.
- A level of  $p < 0.05$  was considered statistically significant
- **Distribution of study population according to age group**

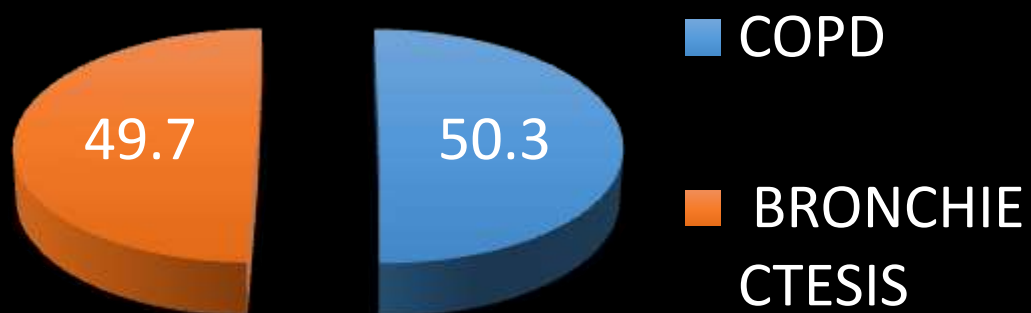




## Distribution of study population according to gender



## Distribution of study population according to Disease present



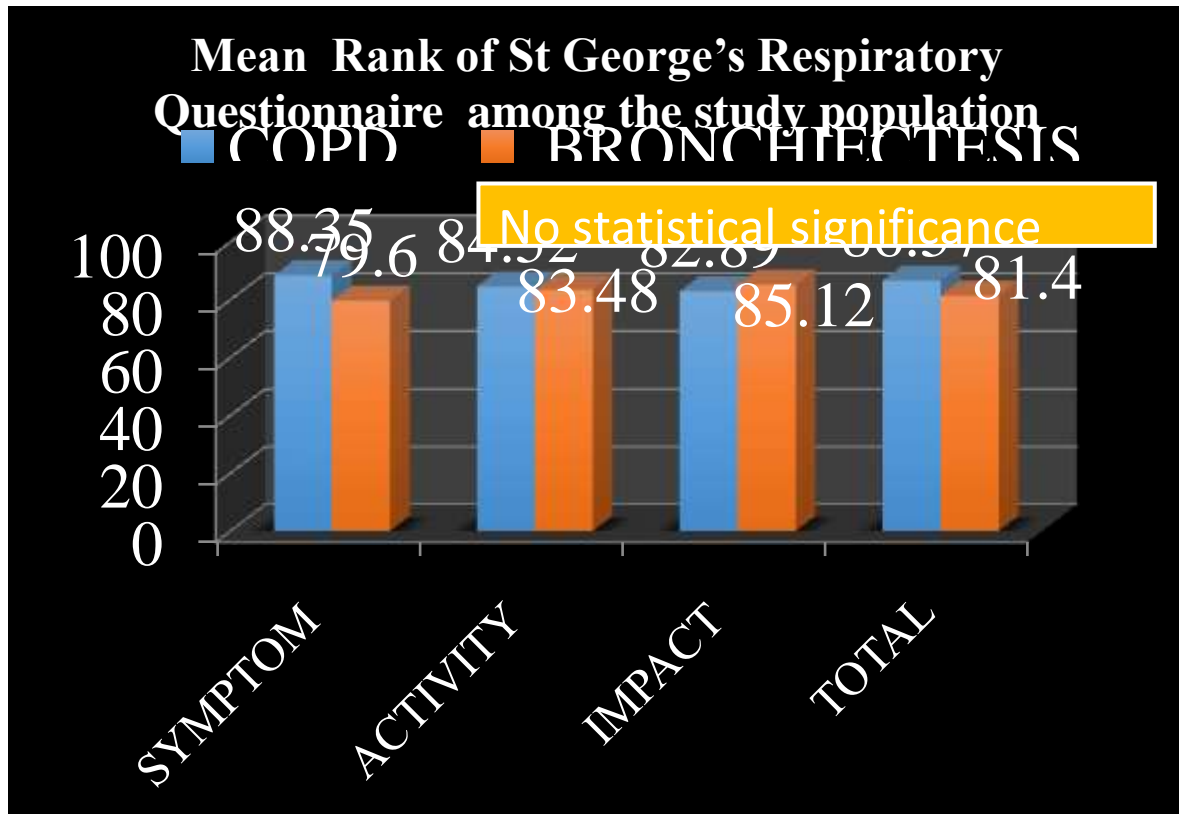
Mann whitney U test, Level of significance at  $p < 0.05$



In total score, The Mean Rank of COPD Was 86.57 and Mean Rank of Bronchiectesis Was 81.40. The Comparison was Failed to Reach the Level Of Significance. Although the total Score was found to be higher Among COPD Patients.

	DISEASE	Mean Rank	P value
SYMPTOMS COMPONENT	COPD	88.35	0.241
	BRONCHIECTESIS	79.60	
ACTIVITY COMPONENT	COPD	84.52	0.888
	BRONCHIECTESIS	83.48	
IMPACT COMPONENT	COPD	82.89	0.766
	BRONCHIECTESIS	85.12	
TOTAL	COPD	86.57	0.490
	BRONCHIECTESIS	81.40	

**Table 1:** Mean Rank of St George's Respiratory Questionnaire among the study population



#### VI. CONCLUSION

- Prevalence of obstructive diseases continues to increase globally resulting in social and economic impact.
- This study showed that the SGRQ quality scores for the symptom, activity and impact component did not differ between COPD and Bronchiectesis patients.
- St George's Respiratory Questionnaire is a useful method for interpreting the health related quality of life among these patients and adequate therapeutic interventions can be applied.

- Thirdly, assessment of the clinical signs and symptoms by the researcher and its correlation could have also been done.

#### LIMITATION AND FUTURE RESEARCH AREA

- Nonetheless, the study also had several limitations.
- Firstly a this study represents findings of a smaller sample size and therefore, has a limited external validity.
- Another limitation was that the subjects enrolled in this study belong to urban areas, in university. Rural and urban comparison could have been done, as the environment, work related and health Facilities differ.