

Clinical profile of COPD patients at a tertiary care hospital

¹Dr.Raghu BP, ²Dr.Raghavendra MK, ³Dr.Aravindh Ram VR, ⁴Dr.Deepak UG, ⁵Dr.Yunus Sheriff

¹Associate Professor, Department of Pulmonary Medicine, SDS TRC and Rajiv Gandhi Institute of Chest Diseases, Bangalore, Karnataka, India

²Associate Professor, Department of Respiratory Medicine, Kempegowda Institute of Medical Sciences, Bangalore, Karnataka, India

^{3,4}Assistant Professor, Department of Pulmonary Medicine, SDS TRC and Rajiv Gandhi Institute of Chest Diseases, Bangalore, Karnataka, India

⁵Senior Resident, Department of Pulmonary Medicine, SDS TRC and Rajiv Gandhi Institute of Chest Diseases, Bangalore, Karnataka, India

Corresponding Author: Dr.Deepak UG

Abstract

COPD currently is considered the 11th leading cause of disability worldwide. Current projections suggest that by the year 2020, COPD will be the 5th leading cause of disability worldwide, behind only ischemic heart disease, major depression, traffic accidents, and cerebrovascular disease. The research students will attend ward rounds on a daily basis and collect cases which are under inclusion criteria. The patients will be randomly divided into intervention and control group. The intervention group of patients will be analysed. Majority of the patients came with complaints of dry cough, wheezing and breathlessness, and a very few patients had complained of fever. Most of the patients were admitted for exacerbation of COPD. It was observed that the patients with exacerbation of COPD were more in number in intervention group.

Keywords: COPD, Breathlessness, dry cough

Introduction

Chronic obstructive pulmonary disease is an extremely important Cause of morbidity and mortality. For example, the prevalence of COPD more than doubled between 1990 and 2002, making it the fourth leading cause of death in the United States. Furthermore, it is projected to be the third leading Cause of death by the year 2020^[1].

This increase in prevalence of COPD is felt to be related to the ageing of the population and past smoking behaviour, because COPD death rates and prevalence lag behind smoking rates by several decades. Because the smoking rates for women peaked later than rates for men, the increase in COPD prevalence in the United States is related primarily to an increase in COPD among women^[2].

The economic impact of COPD is also significant, with estimated annual treatment costs exceeding \$30 billion. This includes health care expenditures of \$18 billion and indirect costs of \$14 billion (e.g., lost earnings because of illness or early death).

COPD currently is considered the 11th leading cause of disability worldwide. Current projections suggest that by the year 2020, COPD will be the 5th leading cause of disability worldwide, behind only ischemic heart disease, major depression, traffic accidents, and cerebrovascular disease^[3].

Like China, India also contributes a significant and growing percentage of COPD mortality estimated to be amongst the highest in the world; i.e. more than 64.7 estimated age standardized death rate per 100,000 amongst both sexes as mentioned in the WHO Global Infobase Updated on 20th January ^[4].

Since rural poor staying in ill ventilated houses using dry wood as fuel are likely victims of indoor air pollution; the prevalence among non-smoking females from this subset may throw significant light on the non-smokers' COPD prevalent in India.

Methodology

Study type

- Prospective interventional study.

Study period

- 06 Months.

Inclusion criteria

- Patients above 15 years of age of both genders.
- Patients who are confirmed with COPD based on GOLD criteria.

Exclusion criteria

- Patients with any other respiratory diseases.
- Pregnant and breast feeding women.
- Patients who are not willing to participate in the study.

Source of data

- Patients case sheets.
- Interview with patients.

Method to study

The research students will attend ward rounds on a daily basis and collect cases which are under inclusion criteria. The patients will be randomly divided into intervention and control group. The intervention group of patients will be analysed.

Results

Table 1: Signs and Symptoms

Signs and Symptoms	Number of Patients	Percentage(%)
Dry Cough, Wheezing, Breathlessness.	81	55
Cough, Wheezing, Breathlessness and Fever.	40	31.3
Cough, Wheezing, Breathlessness and Chest Pain.	9	6
Cough with Expectoration, Wheezing and Breathlessness.	6	4
Cough, Wheezing, Breathlessness and Hemoptysis.	5	3.33
Breathlessness and pedal edema.	1	0.66
Productive cough and Pedal edema.	1	0.66
Cough. Breathlessness fever and Pedal edema.	1	0.66
Productive cough, fever, breathlessness, loss of appetite and dysphagia.	1	0.66

Productive cough, wheezing, breathlessness, fatigue and loss of appetite.	1	0.66
Productive cough, fever, pedal edema, loss of appetite, breathlessness and fatigue.	1	0.66
Cough, fever, wheezing, pedal edema and breathlessness.	1	0.66
Cough and loose stools.	1	0.66
Breathlessness, cough and abdominal pain.	1	0.66

Table2: Distribution of Patients based on Co-morbidities

Sl.No.	Co-morbidities	Number of Patients	Percentage (%)
1.	Diabetes Mellitus	13	8.6
2.	IHD	9	6
3.	Cor Pulmonale	10	6.6
4.	Past PTB	4	2.6
5.	Hypothyroidism	2	1.3
6.	Hypertension	6	4
7.	No co morbidities	75	50

Table3: Distribution of Patients based on Diagnosis of COPD

Sl. No.	Diagnosis	Number of Patients	Percentage
1	Newly diagnosed with COPD.	68	45.3
2	Exacerbation of COPD.	82	54.7
Total		150	100

Discussion

Among 150 patients it was observed that majority were male. Smoking is a common etiological factor for COPD, the number might be on a higher side for male patients in our results which were found to be similar from the study carried out by SeemaAziyakathShavroet *al.*^[5]

Among 150 study subjects the majority of the patients were in the age group 60-69 and 70-79years which clearly indicates that as age increases, the incidence of COPD increases these results was found to be similar from the study carried out by Maher R Khoudaet *al.*^[6]

As smoking and biomass are the most common etiological factor for COPD the area of residence play an important role, it was observed that the majority of subjects were from rural area. It might also be possible that this result is derived as the study centre was a district level hospital.

Though BMI does not have a direct impact on COPD patients these parameter was considered as BMI is one of the predisposing factor to develop COPD it was observed that half of the patients of the population were healthy.

Co morbidities play a key role in prescribing medicines. It was observed that majority of patients did not have any co-morbidity, but a small percentage of the patients had co-morbidities such a DM, HTN^[7].

Coming to the next important factor the social habits, it was observed that most of them have the habit of smoking and it is very well established that the occurrence of COPD is directly proportionate to smoking.

The incidence in the severity of disease depends on the exposure to risk factors. In view to this point it was observed that the majority of patients had exposure to smoking. All female patients had been exposed to the biomass fumes. Surprisingly, some of patients did not have any exposure to risk factors but on the other hand a few had family history of COPD.

Majority of the patients came with complaints of dry cough, wheezing and breathlessness and a very few patients had complained of fever.

Most of the patients were admitted for exacerbation of COPD. It was observed that the patients with exacerbation of COPD were more in number in intervention group.

Proper diagnosis and rational use of medicine play a vital role in prevention and progression the disease. All the patients were treated with bronchodilators as the chief complaint was breathlessness, antibiotics were the second most common class of the drug which was used in COPD patients. Drugs such as analgesics, diuretics, antacid, mucolytics and a few patients were also prescribed with oxygen inhalation to maintain optimal oxygen saturation^[8].

Conclusion

In our study, majority of the patients were found to be male. Smoking was observed to be a common etiological factor. The most common clinical presentations were cough, wheezing, breathlessness and fever. Most of the cases were exacerbation of COPD than new cases of COPD.

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