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Research Article

**A CROSS SECTIONAL STUDY; GERD AS A RISK FACTOR OF
ACUTE EXACERBATION OF COPD**¹Humna Khalid, ²Ayesha Zahid, ³Muhammad Waseem Zahid
Bahawal Victoria hospital, Bahawalpur Pakistan**Abstract:****Objective:** The study is based to assess the prevalence of the GERD in the patients of COPD.**Design and place:** It is cross-sectional study done at the department of Pulmonology in the Bahawal Victoria Hospital, Bahawalpur.**Duration:** July 2016-Feb 2017**Methodology:** 103 patients were enrolled in the study fulfilling the inclusion criteria and established diagnosis of the disease i.e. patients with age more than 40, with >20 pack years of smoking history and FEV/FVC < 0.7**Results:** In the study 35% of patients were in the age ranging 40-55 years and 65% were of age >55 years. The mean age of patients was 66.87±8.71, out of 103 patients 88% were males and 12% were females.**Conclusion:** It was concluded from the study results that 42% of the patients of COPD suffered from the GERD as well. So, in order to put a control on the Exacerbations of the disease surveillance of the GERD should be done of the each and every COPD patient.**Key Words:** Exacerbation, COPD, Disease Surveillance, Pulmonary, Vagal Nerve stimulation**Corresponding author:****Humna Khalid,**
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INTRODUCTION:

COPD is one of the major health concerns of the developing and the developed countries. It is predicted to be the third leading cause of disease burden of the world by 2030. It is characterized by the persistent and progressive limitation of the air flow to lungs and abnormal inflammatory response of the tissue of respiratory system to gases or irritating/noxious Particles. The exacerbations determine the quality of life of a COPD patient. The exacerbation is characterized by acute increase in frequency of cough, dyspnea, severity, and change in the amount/color/smell of the sputum.

The exacerbations are highly morbid and limit the activity of the patient badly, affecting the quality of life and cause burden on the patient economically, physically and Psychologically. There are a number of risk factors of the acute exacerbation of COPD, one of them is Gastro esophageal Reflux disease. GERD is characterized by reflux of the stomach contents into the esophagus due to lower esophageal sphincter incapability. This may cause a number of pulmonary complications like aspiration pneumonia, chronic, cough, Bronchial asthma, fibrosis and Acute Exacerbation of COPD. Vagal Nerve stimulation (causing Broncho spasm) and Micro Aspirations Contribute to Pulmonary complications.

A study done in Lahore shows 39% of the COPD patient suffered from GERD as well. The percentage is quite high in a study done in Turkey and it showed that the patients who suffered from GERD have more frequent exacerbations as compared to Non-GERD patients and they consequently are on intensive therapy for the COPD. This study is focused to

GENDER	NO OF PATIENTS	%
MALE	91	88
FEMALE	12	12

GERD	NO OF PATIENTS	%
YES	41	39
NO	59	61

DISCUSSION:

COPD is major health concern of the world accounting more than 20% of the total burden of the diseases.

GERD is one of the risk factors of the acute exacerbations of the disease. A number of studies have been done on the topic and all show a correlation of the GERD and COPD. The data of the study not only shows the correlation but also that the GERD is the main cause of the exacerbations of disease causing morbidity and poor quality of life.

explore and assess the frequency of GERD in COPD patients in order to highlight an important risk factors of the disease that may be helpful for the health care professionals to manage the disease appropriately and morbidity may be decreased.

OBJECTIVES: The objective of the study was to assess the frequency of GERD in COPD patients.

DEFINITIONS: GOLD's criteria were used for the patients to be enrolled in the study. Age > 40 years Smoking history more than 20 pack years. FEV1/FVC < 0.7

GERD: The frequency of the GERD was evaluated by a preformed questionnaire. Four options were given ranging from none to always, to scale the frequency of the GERD. Scoring of the answers were done as 0 for none and 4 for always. And patients having score more than 8 were considered GERD positive.

INCLUSION CRITERIA: All patients fulfill GOLD criteria definition of the COPD were included in the study.

Exclusion criteria: Patients having asthma other pulmonary diseases and esophageal diseases like Achalasia, Gastric/Esophageal cancer and peptic ulcer.

RESULTS: 103 patients were enrolled for the study. Among them 35 % were 40-55 years of age and rest >55 years of age. 12% were females and 88% were males. 39% of the patients came positive with GERD and 61% had no GERD.

The study was based on highlighting the GERD as the major risk factor for acute exacerbation of COPD. So that it may help healthcare professionals manage the disease in a better way.

In our study it was explored that 39% of COPD patients suffered from GERD. The results are in accordance with another study done in Karachi showing that 41% of COPD patients suffered from GERD. The severity of the GERD increases as the severity of the COPD increases. There are more patients with severe COPD having severe GERD

symptoms and this frequency increases as pack year history of smoking increases. Another study done in Iran shows that there is more use of acid suppressive drugs among COPD patients than in control group.

CONCLUSION:

It is concluded that the frequency of GERD is directly related to COPD. So, every patient presenting with COPD should undergo surveillance and sorted out for GERD. So that, this treatable disease can be managed appropriately.

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