ORIGINAL ARTICLE

Review of chronic obstructive airway disease patients admitted at Maamoura Chest Hospital from 2009 to 2012

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Abstract *Background:* Chronic obstructive pulmonary disease (COPD) is an important cause of morbidity and mortality worldwide. However, it is often under diagnosed and under treated, resulting in underestimation of the burden of this disease. COPD is defined as a preventable and treatable disease with some significant extra pulmonary effects that may contribute to the severity in individual patients. Its pulmonary component is characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases.

Objective: To review the COPD cases who were admitted at Maamoura Chest Hospital during the period from 2009 to 2012 as regards distribution of the disease, risk factors of the disease, severity and complications of the disease.

Patients and methods: This was a retrospective study that was based upon collecting the data of all COPD patients who were admitted at Maamoura Chest Hospital during the period from 2009 till 2012. The data included the following: personal data, clinical data, methods of diagnosis, intensive care unit admission, management and morbidity and mortality.

Results: In the present study, 77.3% of the patients' age ranged between 35 and 70 years, 11.4% were < 35 years and 11.3% were > 70 years. Also, 97.4% were males and 2.6% were females, 75.6% lived in urban areas and 24.4% lived in rural areas. 86.5% of the studied cases were smokers and 13.5% were non smokers. 12.8% of the studied cases were addicts and 87.2% were not. 57.1% of the addicted persons were addicted to cannabis, 19% were intravenous addicts and 23.8% were addicts to tramadol. The most common co morbidities in COPD patients were respiratory infections in 53.9% of cases, heart failure in 44.5% of cases, IHD in 37.9% of cases, AF in 30.5% of

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cases, HTN in 26.9% of cases and DM in 19.5% of cases respectively. The overall mortality rate was 5.7%, 8.5% among the patients who received O_2 therapy, 85.1% among the patients who were put on CPAP, 63.8% among the patients who were put on invasive mechanical ventilation and 44.7% among the patients who were admitted to the ICU.

Conclusions: COPD is a very dangerous disease that affects the lives of many people. The overall aim of management of stable COPD is to ensure good control of symptoms, to slow down the progression of the disease and to prevent further deterioration or complications. The sooner the diagnosis is made and interventions implemented, the more the long-term prognosis is improved.

Introduction

COPD is a common preventable and treatable disease is characterized by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response in the airways and the lung to noxious particles or gases [1].

Exacerbations and co morbidities contribute to the overall severity in individual patients. Chronic obstructive pulmonary disease (COPD) is an important cause of morbidity and mortality worldwide. However, it is often under diagnosed and under treated, resulting in underestimation of the burden of this disease [2].

COPD is defined as a preventable and treatable disease with some significant extra pulmonary effects that may contribute to the severity in individual patients. Its pulmonary component is characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases [3].

COPD is a disease state characterized by airflow limitation that is not fully reversible, the airflow limitation is usually both progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases and associated with systemic manifestations [4].

The burden of COPD is underestimated because it is not usually recognized and diagnosed until it is clinically apparent and moderately advanced. Prevalence, morbidity, and mortality in Egypt are still lacking and have to be estimated, however, COPD is a significant health problem in both men and women. The economic costs of COPD are high and will continue to rise in direct relation to the ever-aging population, the increasing prevalence of the disease, and the cost of new and existing medical and public health interventions [1].

Morbidity measures traditionally include physician visits, emergency department visits, and hospitalizations. Although CORD databases for these outcome parameters are less readily available and usually less reliable than mortality databases, the limited data available indicate that morbidity due to CORD increases with age [5,6]. Morbidity from COPD may be affected by other co morbid chronic conditions (e.g. cardiovascular disease, musculoskeletal impairment, and diabetes mellitus) that are related to CORD and may have an impact on the patient's health status, as well as interfere with COPD management.

The age-adjusted death rates for COPD by race and sex in the US from 1960 to 1996 revealed that COPD death rates are very low among people under age 45, but then increase with age, and COPD becomes the fourth or fifth leading cause of death among those over 45 years, a pattern that reflects the cumulative effect of cigarette smoking [7].

Observed increases in mortality and morbidity appear to be related to past trends in cigarette smoking. Part of the rise in morbidity and mortality may be due to increasing numbers of people living longer, the increases in morbidity and mortality are particularly staking among older people who continue to smoke [8].

Patients and methods

This was a retrospective study that was based upon collecting the data of all COPD patients who were admitted at Maamoura Chest Hospital during the period from 2009 till 2012. The data included the following:

(1) Personal data (age, sex, occupation, residence, special habits {smoking and addiction}.
(2) Clinical data (symptoms, signs, frequency of exacerbations, complications).
(3) Methods of diagnosis (clinically, spirometric function test).
(4) ICU admission.
(5) Management either pharmacological medications or non-pharmacological treatment e.g. rehabilitation program, oxygen therapy and pneumococcal or influenza vaccine).
(6) Morbidity and mortality.

Statistical analysis of the data

Data were fed to the computer and analyzed using IBM *SPSS software package version 20.0*. Qualitative data were described using number and percent. Quantitative data were described using mean, standard deviation minimum and maximum. Comparison between different groups regarding categorical variables was tested using Chi-square test. Significance test results are quoted as two-tailed probabilities. Significance of the obtained results was judged at the 5% level.

Results

Table 1 shows that 77.3% of the patients' age ranged between 35 and 70 years, 11.4% of them were < 35 years and 11.3% were > 70 years. Regarding the sex of the patients, 97.4% of