

Chronic Obstructive Pulmonary Disease

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Global Initiative for Chronic Obstructive Lung Disease (GOLD) defines Chronic Obstructive Pulmonary Disease (COPD) as a common treatable and preventable disease, 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 and gases, in the last 2011 update [1]. It still remains a serious health problem all around the globe with high morbidity, mortality and significant costs to health systems. According to the World Health Organization (WHO), it was responsible for over 3 millions deaths annually at the beginning of this millennium [2]. It was the sixth leading cause of death worldwide in 1990 but our projection for 2020 indicates that COPD will be the third leading cause of death and leading cause of years lost through early mortality or handicap (disability-adjusted life years) [3]. The major cause of the disease is still active smoking but the roles of other causes of morbidity and mortality in COPD like air pollution, infections and occupational factors are well established in recent years [4-9]. Even though the disease seems predominant in men, the increasing rate of cigarette smoking among woman leads to more hospital admissions of woman gender due to acute exacerbations.

Smoking causes an injury in the airway epithelium and this leads to specific airway inflammation and structural changes [10]. Once the person stops smoking, ideally repair process will bring airways back to their normal structure and function but studies showed that most of the inflammatory changes continue despite smoking cessation [11]. Some other factors that might contribute to persistent airway inflammation are increased oxidative stress, protease-antiprotease imbalance, chronic mucus hypersecretion and genetic mutations.

Nevertheless, despite this pessimistic point of view, we still have some optimistic data about the disease. First of all, data from a huge bunch of studies in the literature showed that COPD is a “preventable and treatable” disease. Secondly, legal arrangements for smoking ban, especially in closed areas are increasing in many countries worldwide. Last but not least, there are a lot of ongoing studies on medications for smoking cessation, some of which seem to be safe and effective [12-14].

This special issue of Journal of Pulmonary and Respiratory Medicine will provide a platform for scientists and clinicians from all around the globe to present their knowledge about the disease and updated scientific findings derived from recent studies. I hope that this issue will help the readers and especially clinicians to update their knowledge about COPD and benefit from the novel aspects on the different characteristics of the disease in order to help the patients they are dealing with.

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