EDITORIAL

In Support of the Term Chronic Obstructive Pulmonary Disease (COPD)

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Chronic obstructive pulmonary disease (COPD) is a process characterized by chronic, progressive, almost irreversible airflow obstruction that is primarily caused by an anomalous inflammatory response to inhalation of tobacco smoke. The term COPD is currently preferred to chronic bronchitis or pulmonary emphysema because COPD more accurately defines the obstructive disease that is found in smokers. Although exposure to other inhaled toxins may also lead to COPD, the likelihood of that happening is low in Spain. Moreover, processes that involve airflow obstruction but that have specific causes—such as upper airway stenosis, cystic fibrosis, bronchiectasis, and bronchiolitis obliterans—are specifically differentiated from the term COPD. The same holds true for bronchial asthma, which involves reversible airflow obstruction that may remit completely.[1] The term COPD was coined, among other reasons, precisely to avoid confusion with these other diseases.

COPD constitutes a serious public health problem owing to its high incidence, morbidity, and mortality rates and to its heavy burden on health care recourses. According to information gathered in a recent national survey in Spain, the prevalence of COPD in the Spanish population from 40 to 70 years of age is about 9%.[2] COPD ranks fourth in causes of death among adults, surpassed only by cancer, heart disease, and cerebrovascular diseases,[3] and it is believed that the incidence and mortality rates for COPD will rise markedly in the near future due to persistent tobacco dependence among men and increased dependency among women.[4] Lastly, it is estimated that the average health cost per patient generated by COPD in Spain is approximately E1750 per year (in total, about E475 million per year).[5]

In spite of the great personal, family, social, and economic impact of COPD, evidence suggests that approximately 75% of all individuals with COPD are undiagnosed.[6,7] It seems clear, therefore, that diagnosed patients represent only the tip of the iceberg of those who have the disease.[8]

Underdiagnosis may occur for a variety of reasons. One stems from the very definition of the disease—a definition that has undergone various clinical and epidemiological modifications in recent years, thus giving rise to a plethora of descriptions. The application of different definitions of obstruction can lead to differences of more than 200% in the estimated incidence of COPD, studies have shown recently.[9,10] In fact, a recent editorial emphasized the need for greater nosological precision in the definition of COPD,[11] and in the recommendations of the Global Initiative of Obstructive Lung Disease (GOLD), several hundred words appear before the term "tobacco" is mentioned.[12] In response to this situation, it has been suggested that a more appropriate term than COPD be found. Since tobacco dependency constitutes the prime risk factor for COPD, proponents of change argue that the denomination should include the concept of tobacco—for example "tobaccosis" or "smoker's lung." Indeed, it has been observed that the percentage of patients who permanently cease smoking after consulting a physician is noticeably higher if the diagnosis is expressed as "smoker's lung" instead of "COPD."[13] Nevertheless, the term "smoker's lung" is not entirely accurate since tobacco dependence may also be associated with pulmonary processes other than COPD. In fact, at present there is sufficient data pointing to an association between tobacco and a great many respiratory diseases.[14]

However, the problem with the term COPD may stem from a lack of public awareness of the disease, regardless of its name. It is paradoxical how COPD —*EPOC* in Spanish—is much less well-known than other diseases whose names are pronounceable as acronyms in Spanish—such as *sida* for acquired immunodeficiency syndrome— even though COPD is the older disease. A similar dilemma relates to another important health problem, diabetes mellitus—a disorder that is well known by the population at large even though the name of the disease does not incorporate the word "sugar," as does the phrase by which the disease is

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popularly known in Spanish. Therefore, it is the responsibility of pneumologists to increase awareness of COPD and to popularize the term. Along this line, Bartolomé Celli has coined the Spanish phrase "*paciente epótico*"—or "COPD-ed patient"—to better identify both the disease and a patient profile.[15]

Be that as it may, underdiagnosis is a two-way problem. On one hand, both the lack of public awareness of COPD and the fact that severe symptoms do not present during the long initial phase of the disease mean that patients do not visit specialists until it is too late. Various epidemiological studies have even shown that smokers with respiratory symptoms are unmotivated to seek medical attention.[16] On the other hand, the physician too often does not contextualize the diagnosis and does not order tests that are necessary for establishing a clear, accurate diagnosis. After all, a diagnosis of COPD requires lung function testing to demonstrate the existence of persistent airflow obstruction and to quantify the severity of the obstruction.[8] However, although indications for spirometry are well established, the spirometer is underused in routine clinical practice in Spain, especially at the primary care level. Few primary care physicians request lung function tests on a regular basis because they have little access to such testing. Compounding the problem of an insufficient number of primary care centers equipped with a spirometer, it is not unusual for the equipped centers to test using procedures that are not fully standarized. In fact, a recent study revealed that only 49.1% of primary care centers in Spain were equipped with a spirometer, that only 29.9% of such centers had technicians responsible for lung function testing and, lastly, that only 22.1% of the equipped centers had some sort of periodic quality control protocol to evaluate the reliability of the results.[17] A more far-reaching problem is that the absence of lung function testing is associated with less favorable evolution and with less accepted treatment procedures.[18]

There has also been a negative therapeutic attitude toward COPD that comes from a perspective of the disease as progressive, irreversible, and not susceptible to treatment. Nevertheless, advances in research, improvements in available treatments, and the development of guidelines have systematized our understanding of COPD in recent years. At present, specific therapies are available that make COPD a treatable disease.[19] Even so, treatment of COPD patients does not always conform to established guidelines. Several Spanish studies have revealed that corticosteroids, theophyllines, and mucolytic agents are widely prescribed whereas anticholinergics are underprescribed.[18,20,21] In other words, there is a problem of overprescribing some pharmaceuticals that have limited clinical utility and underprescribing others that are recognized by health care organizations and panels of experts as being effective. Following this line of enquiry, investigators have shown that inappropriate treatment greatly influences the direct medical costs of COPD patients.[22]

Therefore, it is apparent that the problem at hand does not stem only from the definition of the disease. It is unsurprising that our cardiologist colleagues accuse us of holding meetings for the sole purpose of changing the name COPD. In my opinion we are missing out on too many opportunities with this attitude; we are diverting attention from the importance of accurate diagnosis and appropriate treatment of the disease. The time has come to make COPD a well-known term once and for all—not only among patients but also among health care professionals involved in managing the disease—and to abandon the search for a more appropriate denomination—a search which would contribute to popular confusion. What would happen if diagnosed patients were informed that they did not have COPD but rather a disease with some other name? Such a situation would only generate more confusion among those affected, cancel out all the effort made so far in building public awareness by wasting a "registered trademark," and force us to start all over again. I believe the better option is to keep the present abbreviation and redefine its content in more positive terms such that it would be universally applicable—as expressed in the recent consensus statement of the American Thoracic Society and the European Respiratory Society[23]: "Chronic obstructive pulmonary disease (COPD) is a preventable and treatable disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and is associated with an abnormal inflammatory response of the lungs to noxious particles or gases, primarily caused by cigarette smoking. Although COPD affects the lungs, it also produces significant systemic consequences." The consensus statement emphasizes that COPD should be considered in any patient with symptoms such as cough, expectoration, and dyspnea, and with a history of exposure to the risk factors for the disease. Diagnosis requires spirometric measurement that demonstrates that the ratio of forced expiratory volume in the first second (FEV_1) to forced vital capacity (FVC) is less than or equal to 0.7 after administration of a bronchodilator.[23] It must be remembered that establishing an appropriate diagnosis is the first step toward prescribing optimal treatment and that quitting smoking is the most effective way to alter the progression of COPD at all stages of the disease.

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