



Editorial

Comorbidities in Chronic Obstructive Pulmonary Disease[☆]

Comorbilidades de la enfermedad pulmonar obstructiva crónica

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In recent years, greater emphasis has been placed on the need to adapt clinical practice to patient characteristics. This approach, which focuses on the patient rather than the disease, probably represents the origin of personalized medicine. In contrast, clinical practice guidelines continue to rely on scientific evidence and/or on expert consensus for the diagnosis and treatment of specific diseases. This may be appropriate for a patient whose diagnosis and treatment is not affected by other pathological processes. However, COPD patients often have comorbidities which affect key aspects of their clinical presentation, quality of life, treatment and mortality.

COPD is a disease that generally develops in patients over the age of 40, with prevalence peaking in subjects aged 60–80 years. A similar trend is seen in most chronic diseases, which are diagnosed increasingly after the age of 40 years until maximum prevalence is reached after the age of 65. COPD patients, then, can be expected to present comorbidities. In the last 20 years, it has been suggested that COPD might also play a decisive role in the pathogenesis of associated diseases, particularly cardiovascular disease, but there is much uncertainty and confusion surrounding this topic. However, irrespective of whether concurrent diseases are purely concomitant or if they causally related, concomitancy in COPD patients adds not only to the complexity and the economic burden of this entity, but also leads to errors in diagnosis and treatment.¹

In our setting, a large number of patients are diagnosed and treated for COPD on the basis of their symptoms. In medical reports, it is not uncommon to see terms such as “clinical criteria for COPD” in the absence of spirometric confirmation. A common cause of this confusion is the similarity of COPD symptoms with those of other diseases. A study performed in Veterans Administration medical centers in the United States found an association between obesity and the probability of a misdiagnosis of COPD that increased in parallel with an increase in BMI class.² In the same population, obese patients were more heavily medicated. The same situation may occur to a greater or lesser extent with other diseases which present with dyspnea in patients over the age of 40.

Problems with other diseases associated with the diagnosis of COPD also emerge in patients with COPD confirmed with post-bronchodilator spirometry. Clinical guidelines stratify disease severity and treatment according to patient symptoms, the degree of functional limitation, and the number of exacerbations. Failure to consider comorbidities may lead to errors, since the degree of dyspnea, exercise limitation, and even the grade of functional involvement may be associated with factors other than obstruction.³ Concomitant obesity and heart disease in particular may increase the mMRC dyspnea score for a certain value of FEV₁. Furthermore, other conditions such as anxiety or depression may significantly affect the clinical presentation, which is sometimes classified according to subjective scales. Thus, clinically relevant mistakes may be committed if any recommendation which supports intensified medical treatment is implemented before these factors are fully investigated.

These problems with comorbidities in stable COPD also apply to exacerbations. Consensus is growing on the inadequacy of defining exacerbations in terms of numbers. The existence not only of exacerbation “phenotypes”, but also of diseases other than COPD (heart disease, gastroesophageal reflux, etc.) must be taken into account, particularly in the more severe population, as these may in reality be causing the clinical decline, bearing in mind that intercurrent exacerbations may interact negatively with other conditions.⁴

Most studies in comorbidities associated with COPD seem to have focused on their impact on mortality. Divo et al.⁵ analyzed 79 comorbidities and found that 12 had a negative influence on survival. Cardiovascular diseases and lung cancer are more prevalent and have greater impact on prognosis, so these should be specifically evaluated in any COPD management plan. However, this does not prove the hypothesis emerging in recent years that COPD plays a key role in the pathogenesis of these entities, thereby justifying specific treatments in these patients. Indeed, the concept of COPD as a systemic disease should be reevaluated in a joint analysis including associated comorbidities, a proposal supported by the negative results of the SUMMIT study.⁶ Current data suggest that management of comorbidities, particularly those involving cardiovascular risk, should not differ from measures taken in patients without COPD.

To summarize, it seems clear that the treatment of the COPD patients we see in our offices, particularly the more severe cases

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who need greater specialized care, will present a challenge for respiratory medicine specialists in the future. These patients will typically present several concomitant diseases, each one of which will play a key role in the overall clinical presentation. Failure to take an integrated approach will prevent us from achieving the basic aim of treating the patient and not just the disease, even if we adhere to clinical guidelines.¹

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