



Editorial

Questionnaires in Multidimensional Assessment of Chronic Obstructive Pulmonary Disease: Two Sides of the Same Coin[☆]

Cuestionarios en la valoración multidimensional de la enfermedad pulmonar obstructiva crónica: dos caras de la misma moneda

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In recent decades, the diagnosis of chronic obstructive pulmonary disease (COPD) has been veering from simple one-dimensional schemes to more complex strategies based on multidimensional approaches or on phenotypes. The latest update of the GOLD¹ strategy recommends the use of three questionnaires for the assessment of the patient's situation: the COPD Assessment Test (CAT),² the modified Medical Research Council (MRC) dyspnea scale,³ and the Clinical COPD Questionnaire (CCQ).⁴ The inclusion of these three different questionnaires in the GOLD strategy to assess the impact of the disease in patients has provoked an interesting debate on the multidimensional assessment of the disease.

In order to verify the equivalence of these questionnaires, several authors have conducted observational studies, describing a reality that was intuitively perceived by the clinician: the results of these questionnaires, while individually valid in assessing the impact of the disease, are not superimposable. In this respect, some studies have highlighted a lack of agreement between CAT and MRC,⁵ while others report the discrepancies between the MRC and the St. George's respiratory questionnaire.⁶ The differences are reduced by changing the cutoff for the MRC questionnaire in the GOLD classification. Thus, Jones et al.⁷ suggest that if patients with and without dyspnea (MRC grade 0) are separated, the distribution of patients over the various GOLD types is very similar to that obtained using CAT with the current cutoff values.

The idea behind these studies is that if the classification percentages with both scales in a given patient cohort agree, then they could all be used interchangeably for categorizing COPD patients. However, as Jones et al.⁷ point out, concordance in the distribution of GOLD types does not necessarily mean that patients who obtain the same scores on the different questionnaires using these new cutoff values will be exactly the same. In this respect, it should

be borne in mind that epidemiological study results can rarely be applied to a particular patient. This phenomenon, called ecological fallacy, has been well described in the literature.⁸ In the case in hand, this phenomenon implies that, even if cutoff values result in similar percentages in a cohort of patients, significant differences can be detected when specific clinical cases are assessed, depending on the questionnaire used. For this reason, more studies with other methodological designs or types of analyses that allow evaluation of the use of different questionnaires and cutoff levels in individual patients, and not in patient cohorts, are needed.

In this issue of Archivos de Bronconeumología, Rieger-Reyes et al.⁹ present the results of an observational study in 283 COPD subjects evaluating the results of CAT and MRC questionnaires, administered the same day and by the same interviewer to each patient, in order to analyze their potential equivalence in the evaluation of a COPD patient. This study takes an interesting analytical approach, since it provides an assessment of patient-based results. Thus, the authors note that 72.8% of the patients were classified as the same GOLD type, whether assessed by MRC or CAT (75% for types A and B and 70.2% for types C and D). A next step for the authors might be to analyze the characteristics of those cases in whom the questionnaire results agree, as this might identify a particular type of patient in whom the choice of scale for multidimensional assessment would be of lesser relevance.

We are presently witnessing the birth of patient-focused medical practices that will likely lead to the introduction of personalized medicine in COPD in the coming years.¹⁰ Multidimensional assessment initiatives such as the GOLD strategy and other similar approaches are the first step in a long journey, upon which we will learn as we go. Meanwhile, diagnostic strategies must be employed that allow us to adapt to the patients, their variable perception of symptoms, and the changeable clinical expression of the disease. In this context, more questionnaires might not be required; instead, a clear idea on how to use them in individual patients may need to be developed. Recalling a quote attributed to the poet, clergyman and dean of St. Patrick's Cathedral in Dublin, Jonathan Swift (1667–1745), the author of the literary work *Gulliver's Travels*, "We

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have just enough religion to make us hate, but not enough to make us love one another.” The better we understand the complex variability of COPD in individual patients, the better will we be able to provide more personalized treatment solutions, in accordance with advancing science and technology.

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