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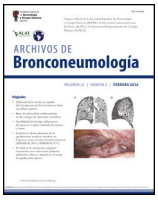

Editorial

Clinical control in COPD: A New therapeutic objective?☆

Control clínico en la EPOC: ¿un nuevo objetivo terapéutico?

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Clinical practice guidelines for chronic obstructive pulmonary disease (COPD) describe the main therapeutic goals as reduction of symptoms and minimization of risk,[1,2] but the time horizon to achieve and evaluate both objectives differs. In each medical visit, a cross-sectional evaluation, that is to say, an immediate impression, is made of the reduction of symptoms, which may include the relief of dyspnea and an improvement in exercise tolerance or in the patient's state of health. Risk reduction, however, is a medium to long-term objective that requires longitudinal assessment. Risk reduction includes reducing exacerbations, slowing disease progression, and reducing mortality. The dichotomy between short and long-term therapeutic goals may be difficult for the clinician to manage, and treatment may need to be tailored to dynamic changes in health status presented by the patient throughout the course of the disease.

In some other diseases, such as asthma, the more pragmatic and flexible concept of clinical disease control prevails. In asthma, the term "control" is clearly defined as no limitation in activities of daily living, no night-time symptoms, minimal or no daytime symptoms, minimal or no need for rescue therapy, no exacerbations, and normal lung function.[3] This concept has made it possible to set feasible therapeutic targets, and has helped to standardize treatment and adjust pharmacological regimens dynamically, with the appropriate treatment escalation and de-escalation.[3]

In the case of COPD, a similar concept of disease control would be very difficult to establish. However, a favorable clinical situation can often be achieved, depending on baseline disease severity, and stability can be maintained over time, so an adapted concept of control could also be applied here. In this setting, the clinical control of COPD has been defined as "a condition of low clinical impact maintained over a long period of time".[4,5] This definition involves a cross-sectional dimension, namely "clinical impact" or impact of the disease on the patient at a given time, and a longitudinal dimension, namely "stability". Clinical impact must always be as low as possible (low impact), and may vary depending on the severity of the disease, while stability is the absence of exacerbations or clinical worsening over time. Control is a combination of stability and low clinical impact.

In 2014, our working group proposed certain criteria for COPD control that were subsequently evaluated in various studies.[6,7] Control was evaluated on the basis of either the combination of various clinical parameters (degree of dyspnea, rescue medication use, physical activity, color of sputum, the presence of exacerbations or perception of health) or the scores obtained using validated clinical questionnaires, such as the COPD Assessment Test (CAT)[8] or the Clinical COPD questionnaire (CCQ).[9] In general, the patients classified as controlled showed a lower future risk of exacerbations. In the end, however, the original control criteria (OCC) proved less sensitive. Only between 4.5% and 32% of patients could be classified as controlled when the clinical approach was used, and between 21% and 37% after CAT assessment, figures that were significantly lower in severe cases.[6,7] The OCC were developed as a preliminary proposal that needed to be refined and validated to assess the relevance of the variables included in the tool, their different thresholds, the number of criteria required, and the need to adjust them according to severity. The concept of control as a predictor of risk also had to be validated. This task has recently been completed, leading to the publication of our modified control criteria (MCC).[10] In a cohort of 265 COPD patients followed for a year, around 60% achieved control according to the MCC, irrespective of their baseline severity, compared to only 27.5% using the OCC.[10] The controlled patients reported better health-related quality of life, with a substantially lower CAT score at 1 year than uncontrolled patients (5.2 ± 3.6 vs 10.1 ± 5.7; $p < 0.001$), and a significantly lower future risk of complication. When the MCC was used, the hazard ratio (HR) of the first compound event (mortality, hospitalization or visit to hospital emergency department) was 2.5 times higher among uncontrolled patients (HR: 2.50; 95% CI: 1.53–4.07), whereas the risk of exacerbation and hospitalization doubled in the absence of control.[10] In our opinion, these results are promising and point toward the emergence of a new therapeutic target for COPD: clinical control of

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the disease. This is a therapeutic objective that is comprehensive (it combines a number of both short and long-term targets), desirable (a controlled patient can be expected to have a lower risk of future complications), easy to evaluate in clinical practice (using standard clinical variables and/or simple questionnaires), achievable for most COPD patients, (regardless of their severity at baseline), dynamic (it can be assessed at all visits), and potentially useful for clinical decision-making. The results of the validation of the MCC must be considered preliminary, and further studies are needed to confirm the initial findings and, in particular, to assess the influence of different therapeutic alternatives. However, given the temporal dichotomy of the objectives proposed in current clinical practice guidelines, we believe that the concept of clinical control in COPD may prove to be a tool that is inclusive, dynamic and useful for decision-making in our day-to-day practice.

Conflict of interests

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