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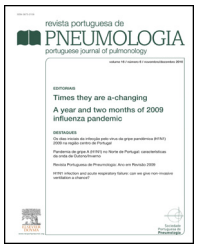

EDITORIAL

Towards a patient-oriented treatment of COPD

Ambition is a strong desire to do or achieve something and being ambitious is having or showing a strong desire and determination to succeed. Ambition is really required to try to summarise the new advances in management of chronic obstructive pulmonary disease (COPD) in a series of articles, but the Portuguese Journal of Pulmonology has demonstrated to be ambitious and is publishing four articles that provide an overview of the new concepts that are important for the clinician that cares for patients with this disease.[1–4]

The first topic is the evaluation of the patient in order to select the best treatment option. COPD is characterised by non-fully reversible airflow obstruction. However, apart from this common characteristic, patients may have absolutely different clinical characteristics and symptoms. Moreover, these different clinical characteristics may reflect different responses to the available treatments. The concept of a clinical phenotype of COPD was introduced to identify patients that share clinical characteristics and response to therapy.[5] But, which are the relevant phenotypes? How many are they? Fragoso et al.[1] propose an answer to these questions. Basically, they propose the same phenotypes previously described in the Spanish Guidelines for COPD,[6] and later adopted in other guidelines such as the Czech[7] and the Finnish,[8] namely non-exacerbators, exacerbators with chronic bronchitis, exacerbators with emphysema and asthma-COPD overlap syndrome (ACOS), with the addition of the COPD-bronchiectasis phenotype. This classification makes a lot of sense because it is based on clinical grounds and is easy to apply in general clinical practice. Furthermore, these phenotypes identify patients that require a different therapeutic approach.[9] Non-exacerbators must be treated only with bronchodilators, ACOS must receive a combination of bronchodilators and inhaled corticosteroids (ICS),[10] patients with chronic bronchitis may respond to drugs such as roflumilast or N-acetylcystein and patients with bronchiectasis may respond to long-term macrolides.[6] Obviously these phenotypes are not clear-cut, but they are a good guidance for the type of treatment that must be chosen as first-line. In any case, we need to remember that no classification will ever substitute the clinical judgement made by the experienced physician.

The second step after initiating a treatment is to acess the response. It is not clear how to evaluate the response to therapy in COPD; we can evaluate the improvement in lung function, in symptoms, the absence of exacerbations, the reduction in the use of rescue medication and the increase in the levels of physical activity, but some of these indicators may not change despite successful treatment and not all of them may mean the same. This is why there has been a growing interest in the concept of control of COPD. Soler-Cataluña et al.[11] published a proposal for a standardisation of control that is in the process of validation. Guimaraes et al.[2] present an interesting review of the concept of control in COPD and indicate that unfortunately there are no available biomarkers about the response to treatment and no consensus exists about the concept of control. However, it is quite likely that we will see some advances in this area in the future.

But the key question is how can we provide the best treatment for our patients with COPD? I really do not think that letters and numbers will help us (A, B, C1, D2, etc.).[12] The practice of medicine is based on observation and description and we have to describe the clinical phenotypes that predict response to treatment[7] and don't get lost in artificial classifications.[13] This is in line of the proposal of a patient-oriented treatment as described by Ferreira et al.[3] Obviously, we do not have all the answers, but at least we know the questions and many groups are working to better identify responders to COPD treatments. Ferreira et al.[3] describe an algorithm for treatment of COPD based on the existing evidence. This algorithm recognises the central role of bronchodilators, and in particular the association LABA/LAMA, which is (or should be) the basis of treatment of COPD.[6–8] My only concern is the inclusion of ICS in individuals with exacerbations. There is no doubt that ICS have an effect on reduction of exacerbations; but in all patients? There is accumulating evidence that only patients with a type of inflammation that is responsive to ICS (Th2 or eosinophilic inflammation) will respond to ICS with a reduction in exacerbations,[8,14,15] whereas patients with infective (bacterial and neutrophilic) exacerbations may be worse off with ICS compared with bronchodilators increasing the risk

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of pneumonia.[15,16] Therefore the role of ICS in the management of COPD must be revisited.[17,18]

Finally, Ferreira et al.[4] introduce the debate about a stepwise approach to therapy or ''hit hard'', starting with a combination of drugs to obtain the maximum improvement from the beginning and then reduce therapy to maintain the same improvement with the minimum number of drugs. This is an interesting topic, and in fact, guidelines differ in their interpretation and recommendations.[19] So far, COPD has been considered a progressive disease and, as such, treatments have been added during the course of the disease. Surprisingly, even mild patients end up with triple therapy (LABA/LAMA/ICS) during the course of the disease.[20] Clearly, not all patients require triple therapy and in particular, not all patients require ICS. Therefore, step down therapy must be possible and patients that do not suffer from exacerbations should have their ICS treatment discontinued.[17,18]

In summary, there are a number of challenges in COPD management, to mention only a few: (1) reduce infradiagnosis, (2) investigate if early therapy with maximal bronchodilatation (LABA/LAMA) has long term benefits, (3) better characterize the patients that require ICS, (4) develop an easy to use tool to evaluate control in COPD, (5) define the role of second-line therapies (ICS, mucolytics, macrolides, phosphodiesterase 4 inhibitors), and (6) develop an algorithm based on clinical phenotypes, easy to use in clinical practice. I am sure that the intense research in COPD will give us some answers in the near future; in the meantime I am sure that reading these articles will provide some ''food for thought'' in this very exciting field of research.

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