Quality Spirometry: What Do We Base Our Definition On?

Calidad en la espirometría, ¿en qué nos basamos para definirla?

To the Editor:

I read with interest the article by C. Represas-Represas et al. analyzing the short-term (1 and 2 months) and long-term (1 year) effectiveness of a tutored training program on the performance and interpretation of spirometry, from which very good results are being obtained. I am completely in agreement with the authors in their organization of joint training sessions with the operators carrying out the spirometries, and the clinicians who interpret them. This is important because knowledge of the technique and the requirements is fundamental to prevent clinicians from merely reporting numbers, while for the operators it is essential that they understand what they are trying to achieve. However, I am rather surprised that on analyzing the results, they use the performance and interpretation of the spirometry as a single parameter. These are in fact two different aspects, which while related, should be evaluated separately, since each of them has specific connotations. Additionally, in the article no definition is offered of a correct spirometry. When describing the training phase, the authors refer to the recommendations of the ERS/ATS/2005; these recommendations state that for a spirometry to be considered of quality, a minimum of three acceptable, error-free maneuvers must be achieved and the differences between the two best FVC and FEV1 readings must be less than 150 mL. One important limitation of this study, as mentioned by the authors, is that the “reproducibility of the spirometries was not analyzed”, since only one single maneuver was analyzed, and that was done graphically. Thus, it is impossible to speak of the quality of the spirometry, either from the point of view of reproducibility (3 maneuvers are necessary) or from the point of view of obtaining at least 3 acceptable maneuvers, as indicated in the current recommendations. A review of the literature reveals that when describing quality, other authors have studied the degree of compliance with the recommendations for performing spirometry use a classification scale ranging from A to F, in which only grades A and B are accepted as quality spirometries (at least 3 acceptable, error-free maneuvers and a maximum difference between the two best FVC and FEV1 of up to 200 mL); quality indexes of between 71% and 90% are obtained from the spirometries evaluated. Recently, Borg et al. published a 5-year study in which quality indexes of between 61% and 92% were obtained. In all the cases mentioned, the indexes reported are within the range obtained by Dr. C. Represas-Represas and colleagues. This begs the question, then, whether the criteria they used in the training sessions were followed for evaluating the spirometries. If this is the case, congratulations are in order; however, if these criteria were not followed, they should state clearly what they understand by a quality spirometry. This is the fundamental element upon which their results are based, and accordingly, these results could be either excellent or misleading to the reader. It is obvious that all efforts to train personnel working with spirometries are laudable, but when these efforts are evaluated, it is essential that clear criteria are followed, in line with current recommendations.

References


Jordi Giner Donaire

Servei de Pneumologia, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain

E-mail address: jginer@tsantpau.cat

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To the Editor:

We have read with particular interest the new “Guidelines for the diagnosis and treatment of idiopathic pulmonary fibrosis (IPF).” It is clear that, as in the previous guidelines published in 2003 [one of the most widely read articles of this journal], Xaubet et al. have made a brilliant summary of the most important aspects of this disease.

One of the main novelties compared to the previous guidelines is regarding treatment. In the past 10 years there has been a shift in the treatment of the IPF patient from immunomodulators to the new antifibrotic drugs, and this is clearly reflected in the document.

However, there is one clinical situation that has not been clarified: how should patients already diagnosed with IPF that are stable on triple therapy (N-acetylcysteine, low-dose prednisone and azathioprine) be managed? Certainly, many other clinicians like ourselves will have asked the same question when reading the guidelines. This is a problem that we would like to examine further.

Although the provisional results of the PANTHER study were widely received with alarm, as Wells et al. recently pointed out, this does not mean a permanent farewell to immunomodulators in IPF. It should be remembered that the IFIGENIA study data showed a reduction in disease progression in patients receiving triple therapy. Moreover, the adverse effects reported in the PANTHER study were associated with the use of high-dose steroids. For this reason, many experts believe that it is reasonable to maintain triple therapy with low-dose steroids in patients who have remained stable on this regimen.

Accordingly, each case can be evaluated by following three simple steps:

1. IPF diagnosis: this is another great step forward reflected in the guidelines. Diagnostic criteria are becoming ever more specific.