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COPD Patients Requiring Long-Term NIV Therapy: What Are the Critical Points in Monitoring the Efficacy of NIV?Eylem Tuncay^a Antonio M. Esquinas^b^aIntensive Care Unit, University of Health Sciences, Süreyyapaşa Chest Diseases and Thoracic Surgery Education and Research Hospital, Istanbul, Turkey; ^bIntensive Care and Noninvasive Ventilatory Unit, Hospital Morales Meseguer, Murcia, Spain

The beneficial effects of noninvasive ventilation (NIV) on COPD-related hypercapnic respiratory failure are well known [1, 2]. However, data on its long-term beneficial effects are quite rare. Studies concerning where and how these patients should be followed up in the long term, the criteria for discontinuation and/or continuation of NIV therapy, and how the long-term effects of NIV therapy should be evaluated are limited in number [3, 4].

With great interest we read the study conducted by Schwarz et al. [5] evaluating the results of a pilot outpatient clinic project on COPD patients requiring long-term NIV according to predefined criteria. Although this study provides valuable information about managing the long-term follow-up of COPD patients requiring NIV in the outpatient clinical setting, we would like to emphasize a few controversial points and make some additional comments on it.

First, we observed that the Severe Respiratory Insufficiency (SRI) [6] questionnaire was used to assess the benefits of NIV therapy for patients receiving home NIV for chronic respiratory failure. However, we know that there are studies demonstrating an enhanced exercise capacity with long-term NIV therapy in COPD patients [7, 8]. We think that the 6-min walk test, which indicates a patient's exercise capacity, needs to be performed in addition to the SRI questionnaire while evaluating beneficial effects of NIV. Moreover, it has been demonstrated that long-term NIV therapy also improves pulmonary function in COPD patients [9]. Therefore, we think that pulmonary function tests need to be performed during polyclinic follow-up as well.

Second, in the study conducted by Schwarz et al. [5], we realized that the BMI values were slightly higher (26.97 ± 7.27) in severe COPD patients. As obesity might be accompanied by sleep disorder in such patients, this indicates that polysomnography needs to be performed to improve the symptoms and adherence to NIV therapy [10]. However, Altınöz et al. [11] demonstrated that

obesity is a better prognostic factor in patients receiving home NIV. Based on this, the fact that urgent hospitalization according to the major criteria was required in very few cases ($n = 7$) among the 130 patients in the study by Schwarz et al. [5] can be explained by obesity.

Finally, on condition that the number of exacerbations remains unchanged, we know that fewer COPD patients receiving long-term nocturnal noninvasive positive pressure ventilation present to a hospital when compared to those not receiving this kind of treatment [12]. Therefore, we think that emergency room visits as well as hospital stays need to be investigated in detail for monitoring of the efficacy of NIV therapy among COPD patients receiving home NIV.

In addition, arterial blood gas analysis should be performed during ambulatory follow-up. To assess the efficacy of treatment in COPD patients receiving home NIV, we think that further studies are required to develop polyclinic systems that allow detailed examinations including exercise capacity, daily activities, sleep, and quality of life.

Financial Disclosure and Conflicts of Interest

The authors declare no conflict of interest.

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