

LETTER TO THE EDITOR

MUSCULAR TRAINING IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

We congratulate the authors of the article entitled "Effects of three respiratory physical therapy programs on patients with COPD", recently published in this journal¹. The subject is extremely important for a pulmonary rehabilitation program to be effective for a specific population.

In the literature, there are diverse studies reporting the benefits of respiratory muscle training (RMT). Weiner et al.² compared a group which trained during a three-month period with individuals which were submitted to RMT for a period of 12 months. An improvement was found in the performance and in exercise capacity, as well as a reduction in dyspnea. The beneficial effects obtained during the three months of training decreased gradually after a one year of follow-up. In the study of Giuseppina et al.³, the effectiveness of pulmonary rehabilitation (PR) program was analyzed for patients with COPD. The individuals were divided into two groups: individuals who performed 10 sessions and individuals who performed 20 sessions of PR. The results demonstrated that the patients who performed 20 sessions revealed significant clinical improvements when compared to the patients who performed 10 sessions.

Therefore, there still is not a consensus in the literature about the time of follow-up with respect to the muscle training programs. In the study of Kunikoshita et al.¹ the respiratory physical therapy program consisted of three sessions per week during six consecutive weeks and significant clinical benefits were found.

The results obtained related to the plasmatic levels of lactate, which permit the indirect evaluation of the metabolic acidosis during the exercise, demonstrated that the group submitted to physical training and respiratory muscle training showed a decrease in lactate blood concentration, increasing the anaerobic threshold, which indicated an improvement in the performance of individuals with pulmonary disease. These findings indicated that the measurement of the plasmatic level of lactate may be a method to evaluate these patients.

Even though it is not stated in the literature the best protocol of physical and ventilatory muscle training of patients with COPD⁴, this study revealed information that is clinically relevant to this population.

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