

EFFECT OF ERDOSTEINE ON HEALTH STATUS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Abstract

Background. Chronic obstructive pulmonary disease (COPD) is a respiratory system disease that causes high morbidity and mortality in the world. Exposure to oxidant substances from smoking and air pollution on the lungs will lead to lung inflammation and worsening of COPD conditions. Therefore we need an antioxidant agent that can inhibit oxidative stress in order to obtain improved health status in COPD patients. **Objectives.** To analyze the comparison between the health status of COPD patients who get regular pharmacotherapy and COPD patients who received additional erdosteine in their treatment. **Methods.** Randomized-double blind study. The study subjects were divided into two randomized groups, regular pharmacotherapy group (control) and groups of regular pharmacotherapy plus erdosteine (test). Observations made during the 10 days, the parameter used is the score of Clinical COPD Questionnaire. **Outcomes.** In the control group, after 10 days, the values obtained between pre-test and post-test differ significantly in symptom score ($p = 0.000$; CI 95%), functional score ($p = 0.001$; CI 95%), mental score ($p = 0.001$; CI 95%), and total score ($p = 0.000$; CI 95%). Likewise, the value in the test group, symptom score ($p = 0.000$; CI 95%), functional score ($p = 0.002$; CI 95%), mental score ($p = 0.000$; CI 95%), and total score ($p = 0.000$; CI 95%). However, the improvements that analyzed with delta scores between pre-test and post test showed a better improvement in the test group symptom score ($p = 0.040$; CI 95%), mental score ($p = 0.023$; CI 95%), and total score ($p = 0.022$; CI 95%). Meanwhile, the delta functional score between the two groups was not significant ($p = 0.835$; CI 95%). **Conclusion.** Overall, regular pharmacotherapy or with additional erdosteine can provide significant improvements in COPD patients, but the value of improvements is greater in patients who get an additional erdosteine.

Keywords: erdosteine, COPD, Clinical COPD Questionnaire, health status