

Abstract

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Title of master thesis: Resting energy expenditure in patients with chronic obstructive pulmonary disease II

The aim of this study was to compare the resting energy expenditure (REE) and nutritional substrate utilization among patients with chronic obstructive pulmonary disease (COPD) and control group. Previous studies have confirmed increased values of REE in COPD patients. On the basis of the increase of this parameter there was a loss of lean and muscle mass. The utilization of nutritional substrates in patients with COPD is not yet known.

Our study by a total of 20 patients includes 11 patients with COPD, and 9 from the control group. The age of patients ranged from 55 to 71 years. Each patient was examined once. We determined the value of REE by indirect calorimetry and utilization of nutritional substrates.

According to our results, there was an increase in REE in 82 % of patients with COPD, while only 33 % of patients from the control group was hypermetabolic. Comparing the results of REE between groups we observed REE increase by about 20 % in patients with COPD compared with the control group.

By setting the utilization of nutritional substrates there was apparent a trend of increase in carbohydrate utilization in COPD patients compared to the control group.

Keywords: chronic obstructive pulmonary disease, resting energy expenditure, indirect calorimetry, utilization of nutritional substrates.