Impact of Obesity on Selected Parameters among Patients with 
Chronic Obstructive Pulmonary Disease 

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Abstract 

Background: The prevalence of chronic obstructive pulmonary disease (COPD) and obesity is increasing dramatically throughout the world. Obesity frequently coexists with chronic obstructive pulmonary diseases (COPD) although obesity is not a risk factor for COPD. Both of these common health problems have been studied extensively in isolation, the impact of their combination is largely unknown. Aim of the study was to explore the effect of obesity on pulmonary functions, dyspnea, and fatigue among patients with COPD. Design: Comparative descriptive design was used in carrying out this study. Setting: Kasr Al Aini Hospital for Medical Diseases affiliated to Cairo University. Sample: A total of 40 adult male patients with COPD, age range between 40-60 years old, admitted from October 2009 to February 2010 were assigned into two groups according to their BMI; obese (BMI=30-34.9 kg/m²) and normal weight (BMI=18.5-24.9 kg/m²). Patients with continuous oxygen therapy, presence of other co-morbidities that could contribute to the studied variables were excluded. Tools: Structured Interviewing Questionnaire, Visual Analogue Scale for Dyspnea, Visual Analogue Scale for Fatigue, Parameters Record Sheet, Medical Record and Simple Spirometer were used to collect the related data. Results: There was no statistical significant difference between the obese and the normal weight patients with COPD as regards respiratory rate, dyspnea scores, and fatigue scores but there was a statistical significance difference (p≥5%) between obese and normal weight patients with COPD as regards blood gases and lung capacity results on admission. While there was a statistical significance difference (p≥5%) between obese and normal weight as regards all the selected parameters prior to discharge. Conclusion: Obesity decreases pulmonary functions measured by arterial blood gases and lung capacity. Dyspnea, and fatigue among patients with COPD are not affected by body weight. 

Key wards: Obesity, Body Mass Index, Chronic Obstructive Pulmonary Diseases, Dyspnea, Fatigue.

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