

THE CORRELATION BETWEEN ANTIOXIDANTS INTAKE (VITAMIN C, E) AND FAT FREE MASS INDEX (FFMI) WITH SEVERITY ON PATIENTS CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) UNDERGOING OUT-PATIENT CARE AT RS PARU DR ARIO WIRAWAN SALATIGA

Vitta Galih Ariacita¹, Sufiati Bintanah²

^{1,2}Program Studi S1 Gizi Fakultas Ilmu Keperawatan dan Kesehatan
Universitas Muhammadiyah Semarang

Chronic Obstructive Pulmonary Disease (COPD) is a major cause of chronic problems resulting in mortality and morbidity in the world. High intake of antioxidant can improve lung function, decrease infection and exacerbation. COPD patients have characteristics of weight loss, and muscle wasting (loss of fat-free mass) and poor prognosis for COPD patients. This study aims to determine the correlation between antioxidant intake (vitamin C, E) and FFMI with severity in COPD patient at RS Paru dr Ario Wirawan Salatiga .

Observational research method with cross-sectional approach was done in this study. The number of research subjects was 45 people using consecutive sampling technique. Data on vitamins C and E intake were obtained using semi-FFQ forms. FFMI is measured by a *bioelectrical impedance analysis* (BIA). COPD severity is taken from spirometry examination. Statistical test used is *pearson product moment correlation* and *rank-spearman*.

The result shows that among 77,8 % of male subjects with an average age of $67,63 \pm 8,21$ years, 64,4 % subjects were former smokers, 64,4 % subjects had deficit vitamin C, 97,8 % subjects had deficit vitamin E, 64,4 % subjects had a low FFMI and 46,7 % subjects in moderate category of COPD severity.

There was correlation between intake of antioxidant source (vitamin C) with COPD severity ($p = 0,008$). There was correlation between intake of antioxidant source (vitamin E) with COPD severity ($p = 0,009$). There was correlation between FFMI with COPD severity ($p = 0,001$).

Key words : FEV₁, FFMI, COPD, Vitamin C, Vitamin E