



ABSTRACT

Correlation between total animal and plant protein intake, with body mass index in tuberculosis patients during the intensive phase in Dili and Oecusse

Merita Marques Lafo¹, Dian Novita Chandra¹, Fariz Nurwidya^{1,2}, Ercia Maria da Conceicao Sequiera³

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Website
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1. Department of Nutrition, Faculty of Medicine, Universitas Indonesia - Dr. Cipto Mangunkusumo General Hospital, Jakarta, Indonesia
2. Department of Pulmonology and Respiratory Medicine, Faculty of Medicine, Universitas Indonesia - Persahabatan Hospital, Jakarta, Indonesia
3. Head Department of Infection Disease – National Hospital Guido Valadares, Dili, Timor Leste

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Introduction: Tuberculosis causes decreased appetite and hypermetabolism, disrupting protein breakdown and synthesis, leading to malnutrition. Proteins, as the primary source of amino acids, support immune cells and help prevent malnutrition and susceptibility to other infections. The intensive phase of tuberculosis therapy is crucial for enhancing immune defense, reducing the bacterial load, and decreasing energy expenditure, thereby increasing body weight.

Methods: Cross-sectional study aimed to identify protein intake using Semi Quantitatif-Food Frequency Questionary instrument and measure weight and height to determine Body Mass Index in tuberculosis patients during the intensive phase in Dili and Oecusse. A total of 104 participants were recruited using consecutive sampling. Data collection included both primary and secondary data, and analyses were conducted using Spearman's correlation tests.

Result: The median age of the subjects was 31 years, with 53.8% being male. Most had secondary education, low income, and high medication adherence. A total of 63.5% had inadequate protein intake, with a median of total, animal, and plant protein intake were 45.18 grams, 19.60 grams, and 25.57 grams, respectively. There was a significant correlation between BMI and both total protein ($r=0.358$, $p<0.001$) and animal protein intake ($r=0.398$, $p<0.001$), but not with plant protein ($r=0.169$, $p=0.087$).

Conclusion: A weak correlation exists between total and animal protein intake with BMI. To improve the nutritional status of patients, it is recommended to increase animal protein intake and awareness programs on the importance of protein.

Keywords: body mass index, total protein intake, animal and plant protein, tuberculosis

Corresponding author:

Merita Marques Lafo
Department of Nutrition, Faculty of Medicine, Universitas Indonesia - Dr. Cipto Mangunkusumo General Hospital, Jakarta, Indonesia
Email : meritalafo@gmail.com