The Effect of Duration of Ramadan Fasting on Food Intake, Lipid Profiles, and Pro-inflammatory Cytokines (TNF-α and IL-6) in Overweight Male Subjects in Malang, Indonesia

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Abstract : This study aims to investigate the duration of Ramadan fasting on the daily intake of total foods, body mass index(BMI), plasma lipid profiles (TG, TC, HDL and LDL) and inflammatory markers (TNF α and IL-6) of overweight male subjects. The research method used in this study is an experimental research method with one group pre-test-post-test design. The respondent for this research is Indonesian male between 20 to 30 years old, do not have a history of diabetes and of hypertension, not an athlete and having body mass index of 25-30 kg/m^2. The number of Respondents is 23 men. Observations of the respondents were done on 7 day before fasting, 14 days of and 21 days of Ramadan fasting. Parameters measured were food intake, anthropometric, lipid profiles (TG, TC, HDL and LDL), and inflammatory markers (IL6 and TNF-α). Data of food intake, anthropometric and lipid profiles wasanalyzed statistically using repeated Anova. Data of TNF-α and IL-6 was analyzed using paired t-test.The correlation between the parameters is done usingSpearman Rank method.The results showed that the fasting of Ramadan is able to decrease the food intake and BMI significantly. Total Cholesterol and LDL were significant different after14 days of Ramadan fasting. The TG, HDL,TNF-α andIL-6were not significant different.
Keywords: Ramadan fasting, Food Intake, BMI, lipid profile, pro-inflammatory cytokines.

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