

INTISARI

Latar belakang :

Obesitas merupakan masalah yang mendunia. Menurut *World Health Organization* (WHO), obesitas adalah penumpukkan lemak yang berlebihan atau abnormal yang dapat mengganggu kesehatan. Obesitas menyebabkan akumulasi lemak pada subkutan dan jaringan adipose *visceral*. Jaringan adipose adalah sumber mediator inflamasi. Penanda inflamasi yang dianggap baik saat ini adalah *C-Reactive Protein* karena bersifat stabil serta ketersediaan uji untuk pemeriksaan laboratorium. Beberapa penelitian menunjukkan adanya keterkaitan antara status obesitas seseorang dengan kadar CRP sebagai marker inflamasi dalam tubuh.

Tujuan penelitian :

Penelitian ini bertujuan untuk mengetahui perbedaan kadar CRP plasma antara kelompok obesitas dengan kelompok kontrol serta mengetahui hubungan antara kadar CRP plasma dengan status obesitas pada populasi Jawa.

Metode penelitian :

Penelitian ini merupakan penelitian *cross sectional* yang bertujuan untuk mengetahui hubungan kadar CRP plasma dengan status obesitas di populasi Jawa. Kriteria inklusi yaitu orang etnis Jawa berusia 18-35 tahun dengan IMT $> 25 \text{ kg/m}^2$ (kelompok obesitas) dan IMT $18-23 \text{ kg/m}^2$ (kelompok kontrol). Analisis kadar CRP menggunakan *Enzyme-Linked Immunosorbent Assay* (ELISA-EIA3954). Pengambilan sampel berupa darah puasa (8-12 jam) sebanyak 5cc secara intravena serta proses analisis dilakukan di laboratorium Biokimia Fakultas Kedokteran UGM.

Hasil :

Kadar CRP plasma kelompok obes (n=52) (1,06(0,08-5,65)mg/L) memiliki perbedaan yang signifikan ($p < 0,001$) bila dibandingkan dengan kelompok kontrol (n=52) (0,41 (0,07-4,07)mg/L). Kadar CRP plasma memiliki hubungan positif lemah dengan IMT ($p = 0,01$, $r = 0,253$).

Kesimpulan :

Hasil penelitian menunjukkan terdapat perbedaan bermakna antara kadar CRP plasma kelompok obese dengan kelompok kontrol serta kadar CRP memiliki hubungan positif lemah terhadap IMT pada populasi Jawa.

Kata kunci :

Obesitas, kadar *C-Reactive Protein*, indeks massa tubuh, rasio pinggang-pinggul.

ABSTRACT

Background :

Obesity is a worldwide issue. According to WHO, obesity is the pile of over abnormal fat that can cause health problem. Obesity causes the fat accumulated in the subcutaneous and in the adipose visceral tissue. Adipose tissue is the mediator source of inflammation. The sign of inflammation that is considered good is *C-Reactive Protein*, because it is stable and it can be tested in the laboratory. Some researchers show that there is relationship between somebody's obesity and the amount of CRP as the sign of inflammation in the body.

Aim of study :

This research aims to find out the difference of the amount of CRP plasma between a group of obese people and a group of controlled people, and also to find out the relationship between the amount of CRP plasma with the obese status in Javanese people.

Research methods :

This research is a cross sectional research that aims to find out the relationship between the amount of CRP plasma and the obese status in Javanese people. The inclusion criteria are people aged 18-35 years with IMT $> 25 \text{ kg/m}^2$ (obese group) and IMT $18-23 \text{ kg/m}^2$ (controlled group). Analysis amount of CRP plasma using Enzyme-Linked Immunosorbent Assay (ELISA-EIA3954). The sample taken is 5 cc fasting blood (8-12hours) through intravena and the analysis process is done in the Biochemist laboratory in the Medical Faculty of UGM.

Results :

The amount of CRP plasma in the obese group ($n= 52$) ($1,06(0,08-5,65)\text{mg/L}$) has significant differences ($p<0,001$) compared to controlled group people ($n= 52$) ($0,41(0,07-4,07)\text{mg/L}$). The amount of CRP plasma has a poor positive relationship with IMT ($p=0,01$, $r= 0,253$).

Conclusion :

The result of the research shows that there is significant differences between the amount of CRP plasma in the obese people and the controlled people, and the amount of CRP plasma has poor positive relationship to the IMT of Javanese population.

Keywords :

Obesity, amount of *C-Reactive Protein*, body mass index, waist-hip ratio