

**PERBEDAAN KADAR hs-CRP MENURUT INDEKS MASSA TUBUH  
DAN DERAJAT *PRAMENSTRUAL SYNDROME***

**TESIS**



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## ABSTRAK

### PERBEDAAN KADAR hs-CRP MENURUT INDEKS MASSA TUBUH DAN DERAJAT PRAMENSTRUAL SYNDROME

MEGA ADE NUGRAHMI

*Premenstrual syndrome* (PMS) menempati urutan ke-4 dengan penyakit terbesar pada wanita yaitu sebesar 12% setelah infertilitas pada wanita 29%, endometriosis 16% dan kelainan genital 14%. PMS terjadi melalui mekanisme peradangan kronis yang ditandai oleh peningkatan kadar hs-CRP. Peningkatan hs-CRP sebagai penanda proses inflamasi berhubungan dengan kegemukan. Tujuan penelitian untuk mengetahui perbedaan kadar hs-CRP menurut Indeks Massa Tubuh dan derajat *premenstrual syndrome*.

Penelitian dilakukan dengan menggunakan desain *cross sectional study*. Penelitian dilakukan di Poltekkes Kemenkes Padang pada bulan Agustus 2017 – Maret 2018. Populasi pada penelitian ini adalah semua wanita usia subur berusia 18-24 tahun yang aktif kuliah di Poltekkes Kemenkes Padang dengan jumlah sampel 50 orang pada dua kelompok yaitu IMT normal dan obesitas. Pengambilan sampel dengan *simple random sampling*. Penilaian *premenstrual syndrome* dengan Lembar Catatan Harian (LCH) menggunakan format *Diagnostic and Statistical Manual of Mental Disorders Fourt Edition Text Revision* (DSM IV TR), pemeriksaan kadar hs-CRP dilakukan di laboratorium Biomedik Fakultas Kedokteran Unand dengan metode ELISA. Uji normalitas data dengan uji *Shapiro-Wilk* dan uji hipotesis menggunakan uji t tidak berpasangan dan *chi-square*.

Hasil penelitian menunjukkan rerata kadar hs-CRP pada Indeks Massa Tubuh (IMT) obesitas yaitu  $14121,8 \pm 1771,6$  ng/ml dan  $1150,1 \pm 278,8$  ng/ml pada normal ( $p$  value  $< 0,05$ ). Rerata kadar hs-CRP pada derajat PMS ringan yaitu  $4077,1 \pm 790,9$  ng/ml dan sedang  $21871,3 \pm 2126,0$  ng/ml ( $p$  value  $< 0,05$ ). Terdapat hubungan yang bermakna antara Indeks Massa Tubuh dengan derajat *premenstrual syndrome* ( $p$  value  $< 0,05$ ).

Kesimpulan penelitian terdapat perbedaan kadar hs-CRP pada Indeks Massa Tubuh remaja obesitas dan normal serta pada derajat *premenstrual syndrome* ringan dan sedang. Terdapat hubungan yang bermakna antara Indeks Massa Tubuh (IMT) dengan derajat *premenstrual syndrome*.

**Kata Kunci :** *premenstrual syndrome, hs-CRP, Indeks Massa Tubuh*

## ABSTRACT

### THE DIFFERENCE OF hs-CRP LEVELS ACCORDING TO BODY MASS INDEX AND LEVEL OF PRAMENSTRUAL SYNDROME

MEGA ADE NUGRAHMI

*Premenstrual syndrome* (PMS) is number four of ranks the largest disease in women that is 12% after infertility in women 29%, endometriosis 16% and genital abnormalities 14%. PMS occurs through a chronic inflammatory mechanism characterized by elevated hs-CRP level. Increased hs-CRP as a marker of the inflammatory process associated with obesity. The objective of study was to know the difference of hs-CRP levels according to Body Mass Index and level of pramenstrual syndrome.

The research was performed by using cross sectional study design. The research done in Poltekkes Kemenkes Padang in August 2017 - March 2018. The population in this study were all women of childbearing aged 18-24 years who actively studying at Poltekkes Kemenkes Padang with sample of 50 people in two groups (obesity and normal BMI). Sampling technique with simple random sampling. Assessment of pramenstrual syndrome with the daily note sheet using the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM IV TR) format, examination of hs-CRP levels was performed in Biomedical Laboratory of Faculty of Medicine Unand by ELISA method. Normality data test with Shapiro-Wilk test and hypothesis test using unpaired t-test and chi-square.

The results showed that mean hs-CRP levels in obesity were  $14121,8 \pm 1771,6$  ng/ml and  $1150,1 \pm 278,8$  ng/ml in normal (p value  $<0.05$ ). The mean hs-CRP level in mild PMS were  $4077,1 \pm 790,9$  ng/ml and moderate  $21871,3 \pm 2126,0$  ng/ml (p value  $<0.05$ ). There was a significant relationship between body mass index and pramenstrual syndrome (p value  $<0.05$ ).

The conclusion of this study there were mean difference hs-CRP levels in obesity and normal body mass index as well as mild to moderate pramenstrual syndrome. There was a significant relationship between body mass index (BMI) and pramenstrual syndrome.

**Keywords** : pramenstrual syndrome, hs-CRP, Body Mass Index

