



POSTER PRESENTATION

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# The effect of Vitamin C supplementation toward high sensitivity c-reactive protein (hsC-RP) level on male adolescent obesity in Padang

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## Background

Prevalence of obesity in children and adolescent has significantly increased, it becomes a serious problem because of the over-releasing of interleukin-6 (IL-6), disruption on the oxidative balance, risk factor of getting cardiovascular disease with typically marked by elevation of the high sensitivity C-Reactive Protein (hsC-RP). On the way to decrease IL-6 release from the visceral adipose cell is by treating the oxidative stress with antioxidant agent, such as Vitamin C.

## Objective

To examine mean hsC-RP level on male adolescent obesity in Padang and to know the effect of Vitamin C supplementation toward hsC-RP level on male adolescent obesity in Padang.

## Method

This is an experimental double blind study with 40 samples on March until May 2011, which were divided into 2 groups. One group consumed Vitamin C 500 mg and another group consumed placebo, both twice a day for 8 weeks. The hsC-RP level is measured before and after drug consumptions. The data were analyzed with chi-square and general linear model repeated measure, the confidence interval,  $p < 0.05$ .

## Result

The mean of initial hsC-RP level is higher in the Vitamin C group than the placebo group ( $2.28 \pm 1.51$  vs  $1.78 \pm 1.23$  mg/L). At the end of the study, mean hsC-RP level were decreasing in both groups ( $1.09 \pm 1.13$  vs

$0.89 \pm 1.09$  mg/L). The changing in hsC-RP level after 8 weeks isn't significant statistically ( $p = 0.481$ ).

## Conclusion

The mean hsC-RP level is high and Vitamin C supplementation was not significantly decreasing hsC-RP level on male adolescent obesity in Padang.

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