

ABSTRAK

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Latar belakang : Prevalensi obesitas sentral di Jawa Barat sebanyak 31,9 % (14,2% pria dan 32,2% wanita). Kandungan daun kelor yang tinggi polifenol, antioksidan, protein, mineral, karbohidrat dan vitamin yang dapat menurunkan kadar serum *ghrelin* dan berkurangnya nafsu makan.

Tujuan : Menganalisis pengaruh pemberian suplemen daun kelor terhadap kadar *ghrelin* dan tingkat nafsu makan pada wanita dewasa obesitas.

Metode : Jenis penelitian *randomized controlled trial* dengan *control group design*. 24 subjek terbagi dalam dua kelompok, yaitu kelompok kontrol yang diberikan kapsul terbuat dari rumput laut dan pembatasan kalori 1700 kkal/hari dan kelompok intervensi diberikan pembatasan kalori 1700 kkal/hari dan suplemen daun kelor 2x1/hari atau 600 mg/hari selama 2 minggu. Berat badan ditimbang menggunakan BIA merk family Dr, tinggi badan menggunakan stadiometer. Skor tingkat nafsu makan menggunakan *skala analog scale (VAS)*, pengambilan sampel darah untuk uji kadar *acyl ghrelin* menggunakan ELISA. Sampel darah diambil *postprandial* 0 menit, 30 menit dan 120 menit. Uji normalitas menggunakan uji *Shapiro-wilk* jika data berdistribusi normal menggunakan uji *t paired test* dan data tidak normal menggunakan *mann whitney*.

Hasil : Kadar *acyl ghrelin* puasa secara signifikan lebih rendah pada subjek obesitas, dan meningkat pada 30 & 120 menit *postprandial* setelah sarapan dengan gizi seimbang dan VAS yang lebih rendah untuk rasa *fullness* dan VAS lebih tinggi untuk rasa *satiety* pada kelompok intervensi. Kurangnya penekanan setelah makan pada subjek obesitas dapat menyebabkan peningkatan konsumsi makanan dan menunjukkan bahwa *ghrelin* mungkin terlibat dalam patofisiologi obesitas. Terdapat pengaruh secara signifikan terhadap peningkatan kadar *acyl ghrelin* dan ada perbedaan antara kelompok kontrol dan intervensi dengan skor *satiety* perbedaan signifikan terhadap 30 menit *p value* 0,05. Berat badan meningkat sebesar $1,03 \pm 0,94$, lingkar perut juga meningkat.

Kesimpulan : pemberian kapsul daun kelor sebanyak 600 mg/hari selama 14 hari meningkatkan kadar *ghrelin* dan tidak ada pengaruh terhadap penekanan tingkat nafsu makan.

Kata kunci : *acyl ghrelin*, *moringa oleifera*, obesitas, tingkat nafsu makan.

ABSTRACT

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Background: The prevalence of central obesity in West Java is 31.9% (14.2% of men and 32.2% of women). Moringa leaves are high in polyphenols, antioxidants, protein, minerals, carbohydrates, and vitamins that can reduce serum ghrelin levels and appetite. Aims to analyze the effect of moringa leaf supplementation on ghrelin levels and appetite levels in obese adult women.

Methods: The type of research was a randomized controlled trial with a control group design. Respondents were divided into two groups: the control group, which would be given capsules made from seaweed and calorie restriction of 1700 kcal/day, and the intervention group, which would be given moringa leaf supplements 2x1 / day or 600 mg/day for 2 weeks. The subjects in this study were 22 obese people. Weight was weighed using the BIA brand stepping scale, and height was measured using a stadiometer. The Appetite level score using analog scale (VAS), and blood sampling for acyl ghrelin level test using ELISA. Blood samples were taken postprandial for 0 minutes, 30 minutes, and 120 minutes. The normality was tested with Shapiro-Wilk, normally distributed data continued with paired t-test, and abnormal data was used Mann's-Whitney.

Results: Fasting acyl ghrelin levels was significantly lower in obese subjects, and increased at 30 & 120 minutes postprandial after a balanced nutritional breakfast and lower VAS for fullness and higher VAS for satiety in the intervention group. The lack of suppression after meals in obese subjects may lead to increased food consumption and suggests that ghrelin may be involved in the pathophysiology of obesity. There was a significant effect on increasing acyl ghrelin levels and there was a difference between the control and intervention groups with a significant difference in satiety scores to 30 minutes p value 0.05. Body weight increased by 1.03 ± 0.94 , abdominal circumference also increased.

Conclusion: giving moringa leaf capsules as much as 600 mg/day for 14 days increases ghrelin and appetite levels.

Keywords: acyl ghrelin, appetite level, moringa oleifera, obesity.