ABSTRAK

PENGARUH YOGURT KECAMBAH KACANG TANAH *plus* EKSTRAK JAHE DAN SERAI (*Yo-canserah*) TERHADAP KADAR GULA DARAH DAN LEMAK VISERAL PENDERITA DIABETES MELITUS TIPE-2 DENGAN OBESITAS

Kamila Laili Febrianti, Hery Winarsi, Umi Faza Rokhmah

Latar Belakang: Obesitas meningkatkan asam lemak bebas yang berdampak pada peningkatan risiko diabetes melitus tipe-2 (DMT-2). Penumpukan asam lemak bebas yang berlebih dari simpanan lemak viseral menyebabkan resistensi insulin, yang berujung pada kondisi hiperglikemia (peningkatan kadar gula dalam darah). Penelitian ini bertujuan untuk mengetahui pengaruh pemberian yogurt kecambah kacang tanah plus ekstrak jahe dan serai (*Yo-canserah)* terhadap kadar gula darah dan lemak viseral penderita DMT-2 dengan obesitas.

Metode Penelitian: Penelitian ini menggunakan metode *true experimental pre-post test control group design*. Responden penelitian adalah wanita DMT-2 berusia 40-70 tahun dengan IMT ≥25, kadar gula darah puasa ≥126 mg/dL, dan lemak viseral >9 di Desa Purwosari. Responden penelitian berjumlah 20 orang yaitu 10 kelompok *Yo-canserah* dan 10 kelompok plasebo. Pemberian yogurt sebanyak 200 mL/hari dilakukan setiap pagi selama 2 bulan dari jam 06.00-08.00 WIB. Kadar gula darah puasa dan lemak viseral diukur sebelum dan sesudah intervensi menggunakan *easy touch* GCU dan BIA Karada Scan Omron. *Food recall* 24 jam dilakukan sebanyak 4 kali. Analisis data pada varibel kadar gula darah diuji menggunakan *paired t-test*. Sementara itu, pada variabel lemak viseral diuji menggunakan *paired t-test* dan *Wilcoxon* ($p<0,05$).

Hasil Penelitian: Responden penelitian bersifat homogen ($p>0,05$), *Yo-canserah* efektif menurunkan kadar gula darah puasa sebesar 49,09% dari 224,78 mg/dL menjadi 114,44 mg/dL ($p=0,044$) dan lemak viseral sebesar 46,42% dari 11,61 menjadi 6,22 ($p=0,011$).

Kesimpulan: Konsumsi *Yo-canserah* dapat menurunkan kadar gula darah puasa dan lemak viseral, sehingga yogurt ini bermanfaat mencegah komplikasi DMT-2.

Kata Kunci: Diabetes melitus tipe-2, Gula darah puasa, Lemak viseral, Obesitas, *Yo-canserah*

ABSTRACT

EFFECTS OF PEANUT SPROUT YOGURT ADDED with GINGER AND LEMONGRASS EXTRACT (*Yo-canserah*) ON BLOOD SUGAR AND VISCERAL FAT LEVELS IN TYPE-2 DIABETES MELLITUS PATIENTS WITH OBESITY

Kamila Laili Febrianti, Hery Winarsi, Umi Faza Rokhmah

Background: Obesity increases free fatty acids which have an impact on increasing the risk of type 2 diabetes mellitus (2DM). Excessive accumulation of free fatty acids from visceral fat stores causes insulin resistance, which leads to hyperglycemia (increased blood sugar levels). This research aimed to determine the effect of giving peanut sprout yogurt plus ginger and lemongrass extract (*Yo-canserah)* on blood sugar and visceral fat levels in obese T2DM sufferers.

Research methods: This research used true experimental pre-post test control group design. Research respondents were DMT-2 women aged 40-70 years with a BMI ≥25, fasting blood sugar levels ≥126 mg/dL, and visceral fat >9 in Purwosari Village. There were 20 research respondents, namely 10 groups *Yo-canserah* and 10 placebo groups. Respondents consumed 200 mL of yogurt/day every morning for 2 months from 06.00-08.00 WIB. Fasting blood sugar and visceral fat levels were measured before and after the intervention *easy touch* GCU and BIA Karada Scan Omron. *Food recall* 24 hours was carried out 4 times. Data analysis on blood sugar level variables was tested using *paired t-test*. Meanwhile, the visceral fat variable was tested using paired t-test and Wilcoxon ($p<0,05$).

Research result: Research respondents were homogeneous ($p>0.05$), *Yo-canserah* effectively reduced fasting blood sugar levels by 49.09% from 224.78 mg/dL to 114.44 mg/dL ($p=0.044$) and visceral fat by 46,42% from 11.61 to 6.22 ($p=0.011$).

Conclusion: Consumption *Yo-canserah* may reduce fasting blood sugar levels and visceral fat, thus this yogurt is useful for preventing DMT-2 complications.

Keywords: Type-2 diabetes mellitus, Fasting blood sugar, Visceral fat, Obesity, *Yo-canserah*