

ABSTRAK

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Latar Belakang: Profil lipid yang tidak normal menjadi penyebab terjadinya penyakit jantung pada obesitas. Peningkatan kadar kolesterol total, LDL (*Low Density Lipoprotein*), dan TG (trigliserida) serta rendahnya kadar HDL (*High Density Lipoprotein*) merupakan indikatornya. Serat pangan dan pati resisten dapat menurunkan trigliserida dan resistensi insulin pada subjek obesitas. Trad metode murah, sensitif dan akurat untuk mengetahui status resistensi insulin menggunakan metode indeks TyG.

Tujuan: Menganalisis pengaruh pemberian kukis *mangpis* terhadap resistensi insulin dan profil lipid pada subjek dewasa dengan obesitas.

Metode: Desain *experimental randomized control group pre post test design*, dilakukan pada 30 subjek obesitas. Kelompok kontrol 14 subjek dan kelompok intervensi 16 subjek obesitas. Jumlah kukis *mangpis* yang diberikan 14 keping, dengan 1 kepingnya 16,2 gram selama 28 hari. Teknik pengambilan sampel berdasarkan *purposive sampling*. Uji beda rerata antar kelompok sebelum dan sesudah intervensi menggunakan uji *paired t-test* jika data berdistribusi normal, dan uji *Wilcoxon* jika data berdistribusi tidak normal. Uji beda rerata antar kelompok menggunakan uji *independent t-test* jika data berdistribusi normal dan uji *Mann Whitney* jika data tidak berdistribusi normal. Status resistensi insulin menggunakan metode indeks TyG.

Hasil: Pemberian kukis *mangpis* selama 28 hari dapat memberikan pengaruh pada penurunan kadar trigliserida dengan nilai $p \Delta$ TG (0,001) dan status resistensi insulin dengan indeks TyG $p \Delta$ (0,011).

Simpulan: Setelah dilakukan intervensi selama 28 hari, konsumsi kukis *mangpis* sebanyak 226,8 gram/hari, tidak memberikan pengaruh terhadap kadar gula darah puasa, tetapi efektif dalam menurunkan kadar TG dan status resistensi insulin.

Kata kunci: *Mangpis*, Profil Lipid, Resistensi Insulin, Obesitas, Indeks TyG

ABSTRACT

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Background: Abnormal lipid profile is the cause of heart disease in obesity. Elevated levels of total cholesterol, LDL (Low-Density Lipoprotein), and TG (triglycerides) and low levels of HDL (High-Density Lipoprotein) are indicators. Dietary fibre and resistant starch can reduce triglycerides and insulin resistance in obese subjects. Trans inexpensive, sensitive and accurate method to determine insulin resistance status using TyG index method.

Objective: Analysing the effect of mangpis cookies on insulin resistance and lipid profile in obese adult subjects.

Methods: Experimental randomised control group pre-post test design, conducted on 30 obese subjects. The control group was 14 subjects and the intervention group was 16 obese subjects. The number of mangpis cookies given was 14 pieces, with 1 piece of 16.2 grams for 28 days. The sampling technique was based on purposive sampling. Test the difference in means between groups before and after intervention using paired t-test if the data is normally distributed, and Wilcoxon test if the data is not normally distributed. Test the mean difference between groups using independent t-test if the data is normally distributed and Mann Whitney test if the data is not normally distributed. Insulin resistance status using the TyG index method.

Results: Giving Mangpis cookies for 28 days can have an effect on reducing triglyceride levels with a $p \Delta$ TG value (0.001) and insulin resistance status with a TyG index $p \Delta$ (0.011).

Conclusion: After 28 days of intervention, consumption of Mangpis cookies as much as 226.8 grams/day, did not affect fasting blood sugar levels, but was effective in reducing TG levels and insulin resistance status.

Keywords: *Mangpis*, Lipid Profile, Insulin Resistance, Obese, TyG Index