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Virgin Coconut Oil - Effects on selected blood profile of Indonesian type 2 diabetics

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Virgin coconut oil (VCO), a source of medium chain fatty acid, has been postulated to improve blood glucose and lipid profile of type 2 diabetics, due to its readiness to provide energy to body cells. The aim of this study was to investigate the effects of VCO, integrated in type 2 diabetic dietary regimen, on fasting serum glucose, insulin, triglyceride and ketone concentrations.

A randomized cross-over design study was conducted among 21 out-patient diabetics. Non-obese non insulin user type 2 diabetics, aged <65 years old, with normal liver and renal functions, and good to moderate diabetic control were recruited. Every subject underwent two treatments for three weeks with one week wash out: control group received only diabetic regimen, while treatment group received 3x10mL/day VCO integrated in their diabetic regimen. Data included age, physical activity, body mass index (BMI), food intake using estimated food record method, fasting serum glucose,

insulin, triglyceride and ketones concentrations before and after treatment, were assessed.

Subjects' age ranged 40–64 years, 41% overweight, 64% with low physical activity, 36% moderate diabetic control, and were able to consume >80% of VCO regimen. Gastro-intestinal symptoms, especially soft stool and nausea, were experienced by 64% subjects. Majority of subjects consumed less energy, fiber and sucrose compared to dietary recommendation. Treatment group consumed higher energy, fat and saturated fatty acid as compared to control group. No difference of BMI, fasting serum glucose, insulin, triglyceride and ketone concentrations after integration of VCO in diabetic dietary regimen.

VCO did not change BMI, fasting serum glucose, insulin, triglyceride and ketone concentrations in type 2 diabetics, despite higher energy and saturated fatty acid intakes among VCO group as compared to control group. ■