

METHODOLOGY

Thirteen patients were included in this randomized controlled cross-over trial. They received a test meal with EVOO or no EVOO followed by a one week wash out period, in which the subjects were given the other intervention. The primary outcome is the trans-meal blood glucose, which is calculated as the percent change in 2-hour postprandial blood glucose.

RESULTS

In group A, there was a noted 88.55% increase in 2-hour post prandial blood glucose in taking meals with EVOO, compared to 72.11% change in meals without EVOO. The same was observed in Group B, where there was a 71.08% and 49.22% increase in 2-hour postprandial blood glucose in meals with EVOO and without EVOO, respectively. The difference was significant with a p-value of 0.044. Free fatty acids inhibit glucose transport and insulin secretion, this effect may be more predominant in Asian type 2 Diabetes Mellitus patients.

CONCLUSION

This study found that adding extra virgin olive oil on top of meals provided no additional benefit in terms of postprandial glucose excursion.

KEY WORDS

diabetes mellitus, diet therapy, olive oil therapeutic use

OA-D-17**THE BENEFIT OF STRUCTURED ACTIVITY IN WOMEN WITH PREDIABETES**

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INTRODUCTION

To determine the effect of structured physical activity on decreasing body fat, increasing muscle mass, decreasing HbA1c and LDL cholesterol levels and increasing HDL cholesterol.

METHODOLOGY

The research method is pre-experimental one group pretest posttest design. Subjects were told to conduct structured activities in gymnastics room of at least 60 minutes, 3 times a week, for 6 months. Research subjects were women aged 18-60 years who were members of Persadia gymnastics at the Islamic Hospital Pondok Kopi Jakarta. Examination of body fat and muscle mass percentage was done using the Bioelectrical Impedance Analysis (BIA) tool. Examination of serum HbA1c, LDL and HDL was done using the ELISA method.

RESULTS

This study initially included 80 subjects but there were 8 people who dropped out, statistical calculations were only carried out on 72 subjects. The results of this study showed a decrease in the average percentage of body fat by 0.526% ($P=0.15$), an increase in the average percentage of muscle mass by 24.6% ($P=0.02$), decrease in HbA1c of 0.2% ($p=0.22$) and LDL levels of 13 mg / dL ($p=0.61$) and an increase in HDL of 12 mg/dL ($p=0.05$).

CONCLUSION

Structured physical activity for at least 60 minutes, 3 times a week, for 6 months in women with prediabetes can increase muscle mass and HDL cholesterol levels. Structured physical activity was also beneficial in reducing body fat, HbA1c and LDL cholesterol in several research subjects, but it was not statistically significant.

KEY WORDS

structured physical activity, body fat, muscle mass, HbA1c, LDL cholesterol, HDL cholesterol

OA-D-18**EFFECT OF SPATHOLOBUS FERRUGINEUS EXTRACT ON BLOOD GLUCOSE LEVELS AND HISTOPATHOLOGY OF PANCREAS IN DIABETIC MALE RATS**

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INTRODUCTION

To determine the ability of *Spatholobus ferrugineus* (SF) extract as an antidiabetic drug.

METHODOLOGY

The experimental study used 6 groups of male Sprague Dawley rats which were given SF extracts. The first group was the control group without induction of alloxan, the second group was composed of diabetic rats, the third group was composed of diabetic rats that received glibenclamide, the fourth group was composed of diabetic rats that received SF dose of 62.5 mg/kg bw, the fifth group received SF dose of 125 mg/kg bw, the sixth group received SF dose of 250 mg/kg bw. On day 15, blood samples were taken with cardiac puncture. Histology of pancreas was done by staining with HE.