

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.

RESULTS

In the first group, the mean BG level was 172 mg/dL, the second group was 771.83 mg/dL, the third group was 281.17 mg/dL, the fourth group was 518.50 mg/dL, the fifth group was 191.67 mg/dL, and in the sixth group was 223.83 mg/dL. The results of histological examination of the pancreas in the first group showed no necrosis and no edema, the second group had severe pancreatic damage with ample empty space, the third group had necrosis of the pancreas but the percentage of area was relatively reduced and narrower, the fourth group also had necrosis, the fifth group has begun to see tissue repair, and in the sixth group islet space is almost invisible.

CONCLUSION

SF extract has a significant effect on the decrease in BG levels seen at a dose of 125 mg /kg bw.

KEY WORDS

spatholobus ferrugineus, antidiabetic drug, pancreas histology

OA-D-19

THE RELATIONSHIP BETWEEN INSULIN USAGE ADHERENCE AND FEMALE SEXUAL DYSFUNCTION IN TYPE 2 DIABETES MELLITUS PATIENTS IN RSUD CUT MEUTIA NORTH ACEH

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INTRODUCTION

A normal sexual health is an important part of life and relationship, it affects overall quality of life, physical and emotional health. Sexual dysfunction is one of the complications in patients with Type 2 Diabetes Mellitus (T2DM). Female sexual dysfunction is more difficult to diagnose and treat because of the intricacy of female sexual response. Insulin usage adherence is an important issue of T2DM treatment, ineffective insulin therapy contributes to poor glycemic control and places patients at risk of complications. This research was carried out in North Aceh, one of the districts in Aceh that applied Islamic sharia. Female sexual function is an issue that is rarely discussed in North Aceh.

METHODOLOGY

This study was an observational study with cross-sectional approach. Data were analysed with chi square statistical test, using statistic software and obtained with interview. Female sexual dysfunction was measured by using Female Sexual Function Index (FSFI) -9 items. Insulin usage adherence was measured by using Morinsky Insulin Adherence Scale.

RESULTS

There were 39.3% respondents who had high adherence, 30.3% respondents had medium adherence, and 30.3% respondents had low adherence. There were 54.5% respondents who had sexual dysfunction and 45.4% didn't have sexual dysfunction. Statistical paired chi square with α 0.05 indicated that there was association between insulin usage adherence and female sexual dysfunction in T2DM patients (*p value* = 0.008).

CONCLUSION

There was a significant relationship between insulin usage adherence and female sexual dysfunction in T2DM patients.

KEY WORDS

diabetes mellitus, insulin, female sexual dysfunction

OA-D-20

CORRELATION OF HBA1C LEVELS AND HEALING RATE OF LOWER EXTREMITY INFECTION IN PATIENTS WITH DIABETES: A RETROSPECTIVE STUDY

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INTRODUCTION

Despite better knowledge of complications of lower extremity infection and efforts to improve prevention of foot ulcers; there has been no established level of HbA1c identified in treatment of lower extremity infection in diabetes.

METHODOLOGY

Retrospective cohort study of 74 patients admitted from 2013 to 2016 for which electronic data were retrieved from the Records section and Wound Care Center of The Medical City. Parameters such as HBA1C, wound size, University of Texas Classification, length of hospital stay and follow up were documented to establish outcome of the study.