

ABSTRACT

Postprandial Blood Glucose Reduction in 20 Minutes Low Intensity and 10 Minutes Moderate Intensity Physical Exercise in Diabetic Patients

Akhmad Fathoni

This study was conducted to prove that 20 minutes low intensity and 10 minutes moderate intensity physical exercise could reduce blood glucose in patients with diabetes mellitus.

This study used pretest-posttest group design. Samples in this study were 20 male patients, aged 40 - 60 years, who were divided into 2 groups. One group performed low intensity exercise for 20 minutes, and another performed moderate intensity exercise for 10 minutes. Samples performed physical exercise by stepping up and down a bench 20 minutes for low intensity exercise and 10 minutes for moderate intensity exercise. Blood glucose measurement was done immediately after and 60 minutes after physical exercise.

The reduction of blood glucose immediately after exercise in group conducting 20 minutes low intensity exercise showed significant difference ($p = 0.002 < 0.05$) and blood glucose reduction immediately after exercise in group with 10 minutes moderate intensity exercise also showed significant difference ($p = 0.001 < 0.05$). The change of blood glucose in both groups demonstrated no significant difference ($p = 0.841 > 0.05$).

As a conclusion, both 20 minutes low intensity physical exercise and 10 minutes moderate intensity physical exercise can reduce blood glucose.

Keywords: fasting blood glucose, diabetes mellitus, low intensity physical exercise, moderate intensity physical exercise