DOI: 10.4172/2155-6156-C1-101

conferenceseries.com

25th International Conference on
HUMAN METABOLIC HEALTH- DIABETES, OBESITY & METABOLISM
&
2nd World Congress on
NUTRITION AND OBESITY PREVENTION
March 21-22, 2019 Dubai, UAE

Bandar Manawer Al Harbi

De Montfort University, UK

Six weeks moderate-intensity combined aerobic and resistance exercise program could be anti-inflammatory treatment and delaying the onset of diabetes for subjects at risk

Introduction & Aim: Pre-diabetes describes a condition whereby an individual's level of blood glucose is above normal level, though not high enough to warrant them a T2D diagnosis. The condition is classified into two categories, Impaired Glucose Tolerance (IGT) where blood glucose levels are above the normal 2 hours after glucose loading in the oral glucose tolerance test but not so high to warrant the classification as diabetes. The other is Impaired Fasting Glucose (IFG) where blood glucose have risen to a fasting state but yet again, not so high to warrant the classification as diabetes. Physical exercise improves BG homeostasis but the extent to which exercise is effective strategy as primary prevention mechanism for people whom at risk to develop diabetes is not fully understood. The study aims to examine the effects of 6-weekes moderate-intensity combined aerobic and resistance exercise program in preventing or delaying the onset of diabetes for subjects at risk compared to sedentary non-diabetic individuals.

Method: 20 subjects of a sedentary lifestyle, diagnosed with either pre-diabetes or at risk to developed T2D (PRE-D) and 5 subjects were sedentary healthy individuals (ND) met the inclusion criteria. Both PRE-D and ND have been asked to complete 6-weeks of moderate-intensity combined aerobic and resistance exercise for 60 minutes on two days/week. Each exercise session consists of a combined exercise protocol of 30 minutes of resistance exercise (3 sets of 10 repetitions) followed by 20 minutes cycling. The primary outcome is to concentrate on metabolic results, such as improved HbA1c, blood pressure, heart rate, 1-repition max, lipid profile (reduction in total cholesterol, low density lipoproteins, triglycerides or increase high density lipoproteins) and improvements in insulin sensitivity determined by responses to oral glucose tolerance tests on independent days.

Result: There were significant reduction (p=0.00) on the HbA1c after applying of 6 weeks' combination exercise intervention in both groups comparing to baseline. OGTT indicated significant differences between pre-exercise and post 12th exercise session in both groups with p=0.01. BG concentrations.

Biography

Bandar Manawer Al Harbi is working as Assistant Director of Pharmacy for Material Management at Prince Sultan Military Medical City. His current research is in diabetes at DMU University, UK. He is an Adjunct Clinical Assistant Professor at King Saud University, College of Pharmacy and Director of Pharmacy and Director of Central Sterile Supplies Department, PSMMC, Director of Medical Supplies and Purchasing, PSMMC. He is the Chairman of the first International Sterilization Symposium, Instructor of Purchasing Material Management/CSSD course. He is the active Member of American Society of Health System Pharmacist (ASHP) and Saudi Commission for Health Care Specialties. He has participated in many conferences globally.

banalh@hotmail.com

Notes: