

STUDY OF LIPID PROFILE AND OTHER ANTHROPOMETRIC PARAMETERS IN HYPERTENSIVE SUBJECTS VISITING LOCAL HOSPITALS

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The present study was aimed to find out the relationship of blood pressure with WHR, BMI and lipid profile in hypertensive subjects in locally sampled population. A total number of 510 subjects (male n- 204, female n - 306) were included in the study visiting Amin memorial trust hospital, Punjab Institute of Cardiology and Sheikh Zayed Hospital, Lahore. The hypertensive subjects were categorized on the degree of hypertension according to JNC-7 into prehypertensive, stage I and Stage II categories. Self designed questionnaire was used to determine blood pressure, anthropometric parameters, medical history and physical habits of the subjects. The results of our study shows that there exists significant difference in mean values of SBP, DBP, TC, LDL and LDL/HDL ratio between the three groups and no significant difference was observed in the mean value of WHR, BMI, HDL, TG and vLDL between the three groups. Pearson correlation was used to quantify the association between different parameters included in the study. SBP significant correlation with WHR in prehypertension. it shows inverse correlation with HDL in prehypertensive and stage I group and positive association in stage II. DBP has significant correlation with BMI and WHR in prehypertension group, and with TG in stage I. This study demonstrates that in prehypertensive group there is relatively higher dearrangements of lipid profile and this group should targeted for early interventions and recommendations for therapeutics goals.

SMOKING BEHAVIOR INVESTIGATION WITH BASNEF MODEL IN STUDENTS OF ISFAHAN MEDICAL UNIVERSITY-IRAN

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Introduction: Using the tobacco is a worldwide problem, and the leading causes of preventable deaths in the United State. Epidemiological researches on adolescent tobacco use has focused on external behavioral influences such as the smoking behavior of friends and parents and tobacco advertising, to predict smoking behavior of adolescent. Materials and Methods: This was a cross-sectional study to test some constructs of BASNEF model as a common theory in understanding and predicting the intention of 100 smoker students of Isfahan Medical University in prevention of smoking. The samples were randomly selected from the smoker students of schools of Isfahan University. For data analysis, Descriptive statistics, Chi-square, ANOVA and spearman test were used. Results: All participants were male. The age of them ranged from (20-30) years old. About 52% of friends of students and 31% of their parents and family members were smoker. There was significant difference between the attitude of students

and Subjective Norms. (PV<0.025).the accessibility of cigarette and others Enabling Factors increased 79%smoking in students. Discussion: To reducing exposure to environmental tobacco, it would restrict youth access to cigarettes, reduce modeling of smoking and send clear messages about peers and parental disapproval of smoking. Using health education theories(BASNEF model) can over come the problems.

HYPOGLYCAEMIA AND ALPHA-BLOCKING PROPERTIES OF BETA-ADRENOBLOCKERS IN DIABETES MELLITUS

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Background and aims: Use beta-adrenoblockers for treatment of chronic heart failure in diabetic patients is connected with high risk of hypoglycemia. To estimate the effect of carvedilol on the carbohydrate metabolism in patients with diabetes mellitus type 2. Materials and methods: The 13 diabetic patients with heart failure (LVEF 39,6±7,2%) due to ischemic heart disease were examined. The group consisted of 10 men and 3 women, with age of 59,8±6,7, years. The HbA1c was 8,4±1,4%, the mean level of fasting plasma glucose was 7,1 ±2,1, mmol/l. Continuous glucose monitoring was performed for 3 days with the use of CGMS. At the analysis of results of monitoring were defined average value of fasting plasma glucose, averages maximal and minimal concentration of glucose; number of episodes of the blood glucose level below the physiological level (<4,5 mmol/l), average duration of episodes of hypoglycaemia in minutes, number of long episodes (> 20 minutes) of low glucose and number of heavy hypoglycaemia (glycemia < 2,5 mmol/l). The first CGMS was spent on atenolol therapy, the second research was spent after canceling atenolol and 2 months therapy of carvedilol, the third research was spent after canceling carvedilol and returning to therapy atenolol. Results: It was shown, that carvedilol treatment reduced number of episodes of blood glucose level below the physiological level; decreased the duration of such episodes; actual disappearance of especially "long" episodes of low glucose and there was full disappearance of episodes of the "heavy" hypoglycaemia (p<0.001). After canceling of carvedilol the duration of periods of glucose level below the physiological level was increased. Conclusion: Using non-selective beta-adrenoblocker carvedilol with alpha-blocking properties in treatment of heart failure in patients with diabetes mellitus type 2 was connected with lower risk of heavy hypoglycemia.

AMELIORATE INSULIN RESISTANCE BY AQUEOUS EXTRACT OF CHLORELLA

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Fresh grown Chlorella has been shown to lower serum cholesterol levels, boost immune function and ameliorate hyperglycemic state of STZ mice. Here, we propose a possible role for insulin sensitizing effects of aqueous extract of Chlorella (insuplus). Diabetic db/db mice and differentiated 3T3-L1 cells (adipocytes) were used as

insulin resistance models. Mice were treated with insulin (2.5 IU/kg) or insuplus (100 mg/kg) and their plasma blood glucose levels were monitored for 24 hours. Differentiated 3T3 cells were co-cultured with LPS-stimulated macrophage media (conditioned media) for 12h. Non-esterified fatty acid (NEFA) production was measured in the presence of insulin (1 pM) or insuplus (2 mg/ml). Effects of insuplus on expression of PPAR-gamma, is known as the transcriptional factor for regulating fatty acid binding protein in adipocytes, was also investigated under the same treatment. Plasma glucose levels were not affected by administration of insuplus in normal mice, whereas the levels were significantly suppressed for as long as 12h in db/db mice. Inhibitory effect of insulin on NEFA production was diminished in the condition media treated adipocytes. However under the same condition, the inhibition of NEFA production was resumed in cells co-treated with insuplus. Expression of PPAR-gamma was diminished in the condition media treated adipocyte, however the presence of insuplus prevented the loss of PPAR-gamma gene. Accumulation of fatty acid has been shown to cause insulin resistance. In conclusion, hypoglycemic effect of Chlorella is at least partly mediated through removing fatty acids from the circulation.

MONEY HANDLING INFLUENCES BMI: A SURVEY OF CASHIERS

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Money is a recent phenomenon in an evolutionary history of man and therefore no separate brain centre to handle money has evolved. The area in the orbitofrontal cortex activated by food reward and money reward is shown to be the same. In an experimental set-up, hunger was demonstrated to influence money related decisions and money related thoughts to influence hunger. This suggests that there could be a neuronal cross-talk between food and money and changing attitudes and behavior related to money and wealth could be a significant factor in shaping the current obesity epidemic. In order to test the hypothesis, we conducted a survey of 203 cashiers working in different work set-ups viz bank cashiers (51), shop cashiers (64) and shop owners (88). Personal history, job history, medical history, BMI and exercise schedule were recorded. The BMI correlated with years of service as cashier even after correcting for age and exercise. Male but not female cashiers who had ownership over the money had a significantly higher mean BMI than salaried cashiers. Among salaried cashiers of both sexes, bank cashiers whose daily cash handling is one or two orders of magnitude more than shop cashiers, had a significantly higher BMI. The effects of amount of money handled per day, years of service as cashier and ownership over the money handled could be shown to influence BMI independent of each other. The results support the hypothesis that the physical as well as mental act of money handling influences obesity.

THE IMPACT OF 12-WEEK PHYSICAL TRAINING PROGRAM AGING SEDENTARY MEN AT HOMA-AD: A NEW INDEX OF INSULIN RESISTANCE

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HOMA-ir has become a widespread measure of insulin resistance in the last years. Matsuhisa (2006) proposed a new index to verify the insulin resistance in individuals with normal to moderately-impaired fasting glucose or without diabetes: HOMA-AD. This index is the product of the fasting insulin and glucose levels divided by the serum adiponectin (ADP). Objective: To verify the insulin resistance, through HOMA-AD, in sedentary aging men, before and after physical training. A prospective, one-arm study to follow up HOMA-AD, other metabolic parameters and anthropometrics in 90 middle-aged male volunteers before and after a 12-week physical exercise program. Fat mass percentage was obtained by electric bioimpedanceometry. The subjects were 50,2(7,9)years-old, with initial BMI 27,79(4,08)Kg/m²; the initial fasting glucose and HOMA-AD were respectively 87,77(9,94)mg/dL and 140,49(172,10). HOMA-AD was correlated positively with BMI, waist and hip ($p < 0,05$); fat mass percentage ($p < 0,01$); HDL cholesterol ($p < 0,004$). Divided in quartiles, HOMA-AD compared with all variations of parameters showed tendency to correlate with AST and hemoglobin A1c ($p=0,060$). By linear regression, HOMA-AD showed been influenced by BMI, waist, hip, fat mass percentage ($r=0,45$) and also to hepatic enzymes (AST, ALT, GGT) and lipids (total cholesterol, HDL, triglycerides) ($r=0,42$). Compared to basal, the physical training promoted significant change to BMI and waist ($p < 0,01$) and to most metabolic parameters: GGT, HDL and glucose ($p < 0,01$); total cholesterol, hemoglobin A1c, AST and ALT ($p < 0,05$), but HOMA-AD did not change statistically. Conclusion: HOMA-AD does not change after short-term exercise training in this population. It is possible that a longer intervention and in other population may show reduction in that index.

BLOOD PRESSURE CONTROL IN DIABETES MELLITUS

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Earlier investigation showed that in Hungary the effective blood pressure (BP) control about 30% of hypertensive patients. The European society of Hypertension suggest that BP should be reduced to at least below 140/90 mmHg and to lower values, if tolerated, in all hypertensive patients. In cases of hypertension combined with diabetes mellitus target BP should be at least <130/80 mmHg. Our aim was to determine the proportion of successful target BP among patients with diabetes mellitus. Patients and methods: In this study for 4 years we investigated our inpatients to following parameters: gender, age, duration of diabetes and hypertension, systolic and diastolic BP, calculated the mean arterial pressure (MAP) and pulse pressure (PP). Results: In this period we investigated 4112 patients. Among these patients had 668 diabetes mellitus. All of them suffered from hypertension too. 432 women, age 68,33±11,31 (35-91) years. The mean duration of diabetes mellitus was 12,340±8,63 (1-42) years and the mean duration of hypertension was 12,68±8,73 (1-41) years. The systolic BP was 142,56±20,85 (102-206) mmHg, diastolic BP was 84,56±10,54 (62-124) mmHg.