correct) and only 5.5% answered 20 correctly (77% correct). Conclusions: The level of knowledge of carbohydrate consumption, glucose control and insulin use in the study subjects is not desirable. Despite this, clinical and metabolic control data indicate adequate control of his condition. An alarming finding is the high percentage of underweight people.

Keywords: Carbohydrate consumption; insulin; glucose monitoring; type 1 diabetes; knowledge.

Abbreviations: T1D, type 1 diabetes; BMI, body mass index; TIR, time in range; eHbA1c, estimated glycated hemoglobin; HbA1c, glycated hemoglobin.

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Nothing to disclose.

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0139

Role Of Diabetes and Hypertension in The Vascular Complications of The Extremities with Tissue Pattern Modifications and Their Role in Atherothrombotic Disease – A Histomorphometric Analysis

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Abstract
Vascular complications of the extremities with Diabetes and Hypertension are the most serious indications and may lead to Atherothrombotic disease of the vasculature. This could be observed in different regions of the body that increases cardiovascular morbidity and mortality of the population and is a concern in diabetic vascular diseases that are asymptomatic.
The study was to observe the distortions of endothelial lining, vascular smooth muscle cell conversion and connective tissue dysfunction.
The arteries of extremities at three different levels were collected from 50 cadavers, sectioned and stained with H&E and VVG for histomorphometrical analysis.
The samples were grouped based on the age, observed for thickness of tunica intima, associated with fibrillation, fragmentation, and duplication of cellular structures, that are due to the changes in the smooth muscles and connective tissue in the tunica media. The standard ratio between tunica intima and tunica media is 0.46 in males and 0.37 in females, respectively. Accumulation of lipids might contribute to added risks. There are observed modifications in the elastic lamina and the collagen fibers. There was a medial calcification observed in some of the sections. In the arterial sample, the length of the calcification area varied from 32.74 μ to 453.84 μ, and the width varying from 2.73 μ to 253.81 μ. These changes are indicators of high-risk levels in diabetic and hypertension condition. The connective tissue alteration in the arterial wall is the probable cause leading to vascular diseases and high-risk factor in hypertension and diabetes.

Keywords: Diabetic vascular disease, vascular smooth muscle conversions, cardiovascular morbidity

Abbreviations: Ti - Tunica Intima, Tm- Tunica media

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0140

T2DM Subgroups and Response to Glucose-lowering Therapy: Results from EDICT and Qatar Study

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Abstract
Aim: To examine the efficacy of glucose lowering medications in subgroups of T2DM patients
Research Design and Methods: Cluster analysis was performed in EDICT and Qatar Study participants using age, BMI, HbA1c, HOMA-IR and HOMA-B. The metabolic characteristics were measured with plasma glucose, insulin and C-peptide concentrations during the OGTT and the response to glucose therapies was measured in each cluster for 3 years.
Results: 3 distinct clusters of T2DM patients were identified in EDICT and Qatar Study. Prevalence of 3 clusters was similar in both studies. Patients in Group 1 had the highest HbA1c and manifested severe insulin deficiency. Patients in Group 3 had comparable insulin sensitivity to Group 1 but better beta cell function and better glucose control. Patients in Group 2 had the highest BMI with severe insulin resistance accompanied with marked hyperinsulinemia which was primarily due to decreased insulin clearance. Unexpectedly, subjects in Group 1 had better response to combination therapy with pioglitazone plus exenatide than with insulin therapy or metformin sequentially followed by glipizide and basal insulin, while subjects in group 2 responded equally well to all 3 therapies despite very severe insulin resistance.
Conclusion: Distinct metabolic phenotypes characterize different T2DM clusters and differential response to glucose-lowering therapies characterize each cluster. Patients with severe insulin deficiency respond better to agents that preserve beta cell function, while patients with severe insulin resistance did not favorably respond to insulin sensitizers.

Keywords: Type 2 diabetes subgroups, cluster analysis, glucose lowering therapy

Abbreviations:

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0141

Overweight is Not a Diabetes Risk Factor for Insulin-sensitive Individuals: CARDIA 30-year Follow Up

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