

African Americans, 26.8% of Caucasians and 21.1% of Asians had  $A1c \geq 9\%$ . Mean TDD was higher in patients with  $A1c \geq 9\%$  (TDD  $106.4 \pm 58.9U$ ) compared to patients with  $A1c < 7\%$  (TDD  $84.7 \pm 55.6U$ ) [Table].

**Conclusions:** Despite advances in therapeutics for T2D management, only 21% of adults with T2D on MDI were able to achieve optimal glycemic control. Moreover, our real-life data highlights greater need for research to close the diabetes care disparity.

#### EV549 / #910

##### E-Poster Topic: AS20. Other

#### NON-DIABETIC AND DIABETIC INDIVIDUALS: CORRELATION WITH BLOOD SUGAR, LIPIDS AND HBA1C

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**Background and Aims:** Diabetes mellitus type 2 is a disease that affects about 5% of the population and is related to genetic and environmental factors. DM2 often coexists with dyslipidemia which increases cardiovascular risk. Many complications of T2DM have been associated with glucose and triglyceride metabolism.

The aim of this study was the determination glucose, cholesterol, HDL-Chol, LDL-Chol, triglycerides and glycosylated hemoglobin in plasma of diabetic and non-diabetic group.

**Methods:** The study included 80 diabetic (Glu  $>125mg\%$ , HbA1c  $>7.0\%$ ) and non-diabetic individuals. Whole EDTA blood samples were used for the determination of HbA1c and the derived plasma samples were used for the determination of Glu, Chol, TG by a colorimetric assay. Separation of HDL from total lipoproteins, was carried out by precipitation. LDL cholesterol was estimated using Friedewald equation.

**Results:** There was statistical significance in the differences of the median values of the six variables between diabetics and non-diabetics and between them in relation to gender.

**Conclusions:** The present study in the Greek population showed increased levels of Glu, Chol, HDL-Chol, LDL-Chol, TG and HbA1c in plasma of diabetic group. These combinatorial of sugar/lipids/ HbA1c significant elevated values, within the diabetic group, should cause reasonable concern, towards a future metabolic syndrome high risk.

#### EV550 / #1310

##### E-Poster Topic: AS20. Other

#### ASSESSMENT OF OVERWEIGHT AND CORRELATION BETWEEN OF VISCERAL FAT AND INDEXES OF INSULIN RESISTANCE IN PATIENTS WITH LONG-DURATION TYPE 1 DIABETES

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**Background and Aims:** To evaluate the presence of overweight (OW) and relationship between DEXA parameters of visceral adipose tissue (VAT) and some indexes of insulin resistance (IR) in patients with T1D with long duration.

**Methods:** The study included 183 participants, 124 with T1D (age  $42.7 \pm 10.4$  years, BMI  $25.6 \pm 4.0kg/m^2$ ) and 59 age, sex and BMI matched controls (45.1  $\pm$  9.1 years, BMI  $26.6 \pm 5.0kg/m^2$  ( $p=0.13$ )). Mean diabetes duration for the T1D was  $25.3 \pm 8.2$  (11-58) years. The prevalence of overweight (BMI  $>25kg/m^2$ ) was calculated, and abdominal obesity was defined as waist circumference (WC)  $\geq 80cm$  for women and  $\geq 94cm$  for men. Blood sample of Triglycerides/HDL-cholesterol ratio, HOMA-IR, visceral adipose index (VAI), triglyceride-glucose index (TRYGI) and lipid accumulation index (LAPi) was collected. Parameters of VAT from DEXA "mass" and "volume", were included into the analysis.

**Results:** Mean HbA1c was  $8.4 \pm 1.8\%$ . Controls were more often overweight – 54.2% vs 48.4% of T1D patients ( $p=0.009$ ). The prevalence of abdominal obesity was similar between the two groups. Triglycerides/HDL-cholesterol and VAI correlated with VAT volume and VAT mass ( $p<0.0001$ ). Very weak positive correlation was found with HOMA-IR and VAT volume ( $\rho=0.18$ ,  $p=0.018$ ). There was a weak to moderate correlation of TRYGI with VAT volume and VAT mass in both T1D and control patients. An excellent correlation was found between VAT mass and LAPi ( $\rho=0.73$ ,  $p<0.0001$ ), VAT volume and LAPi ( $\rho=0.74$ ,  $p<0.0001$ ) only in patients with T1D.

**Conclusions:** Patients with long duration T1D are still less overweight than matched controls. Yet, DEXA measured VAT parameters and IR indexes may independently predict metabolic risk. Prospective studies are warranted.

#### EV551 / #640

##### E-Poster Topic: AS20. Other

#### ELUCIDATION OF PARAMETERS INDICATIVE FOR HFPEF IN INDIVIDUALS LIVING WITH TYPE 1 DIABETES

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**Background and Aims:** Individuals living with type 1 diabetes have a known increased risk for cardiovascular disease, despite improvements in glycemic control over the last decades. However, whether heart failure with preserved ejection fraction (HFpEF) - as seen in type 2 diabetes and obesity - also plays a major role in individuals living with type 1 diabetes is being investigated in this study.

**Methods:** We investigate cardiac function via echocardiography, recent glycemic control via continuous glucose monitoring (CGM) systems and body composition via bio-electrical impedance analysis in patients with type 1 diabetes from our diabetes registry.

**Results:** Of a total of 28 patients with type 1 diabetes, 57% are female, with a mean age of 48 ( $\pm 12$ ) years and BMI of 29.3 ( $\pm 6$ ). Prevalence of diastolic dysfunction  $\geq$  grade 1 is 32%, with age being significantly higher (44 vs 55;  $p=0.044$ ) in those with